

FIG. 1

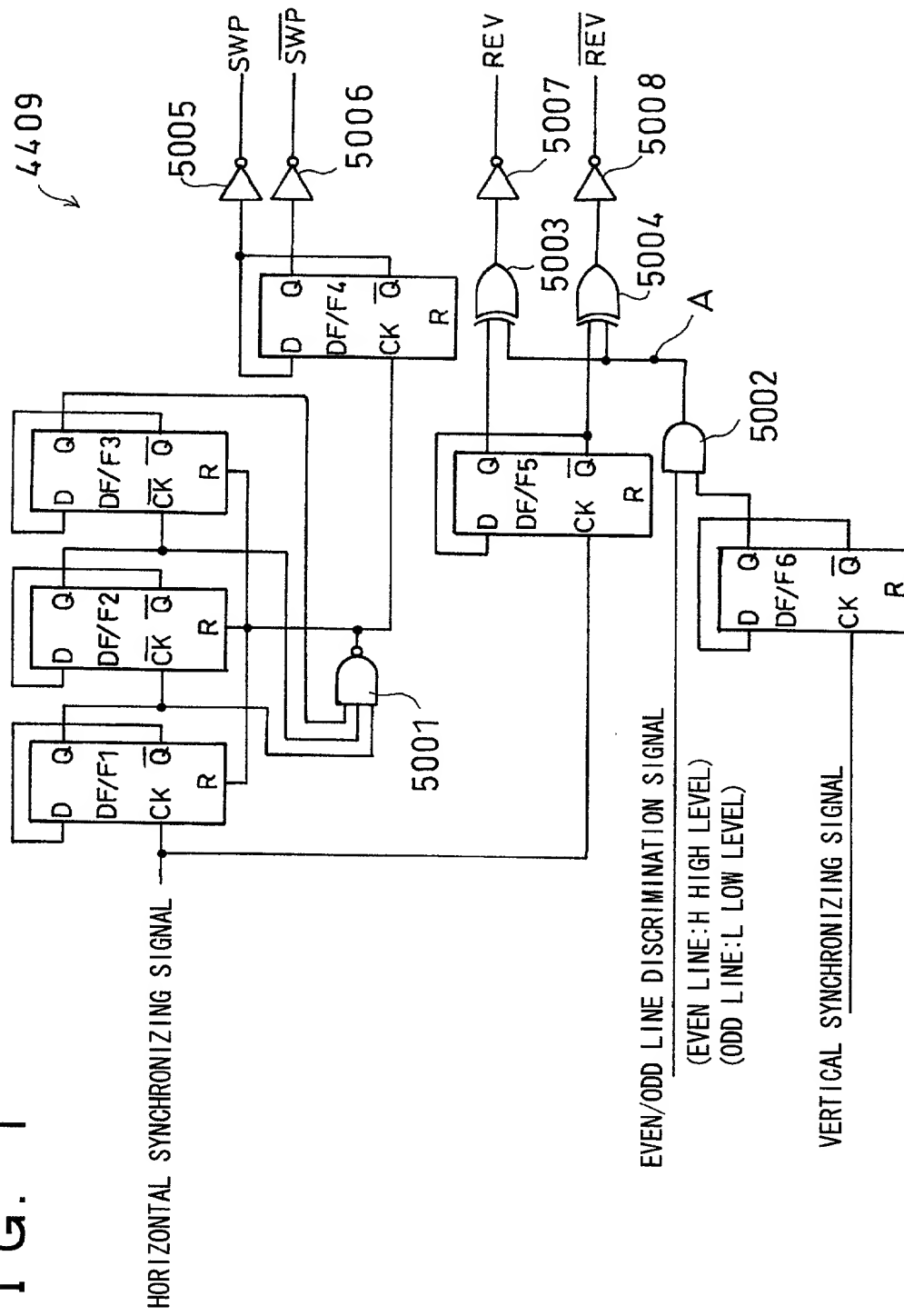


FIG. 2

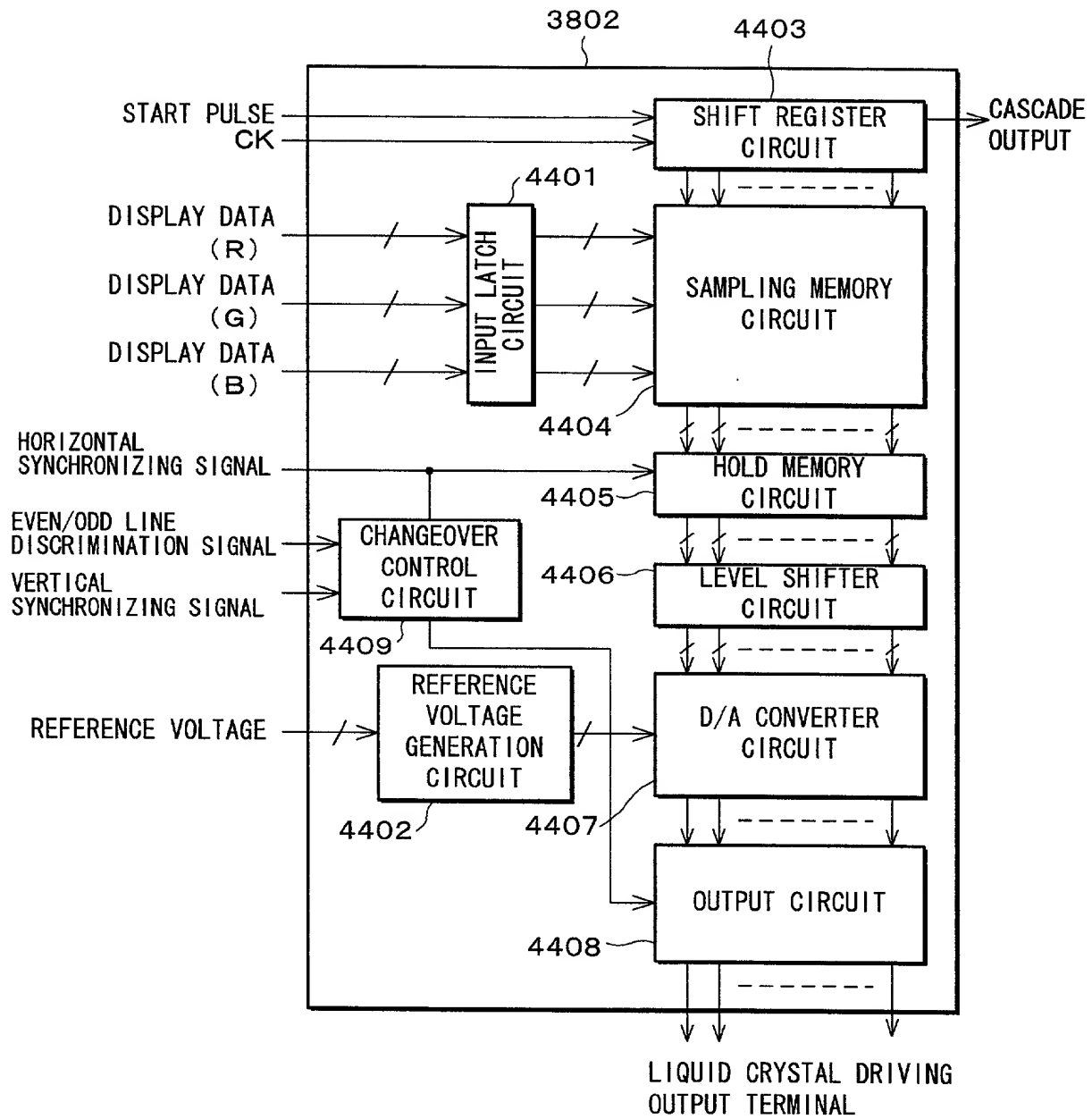


FIG. 3

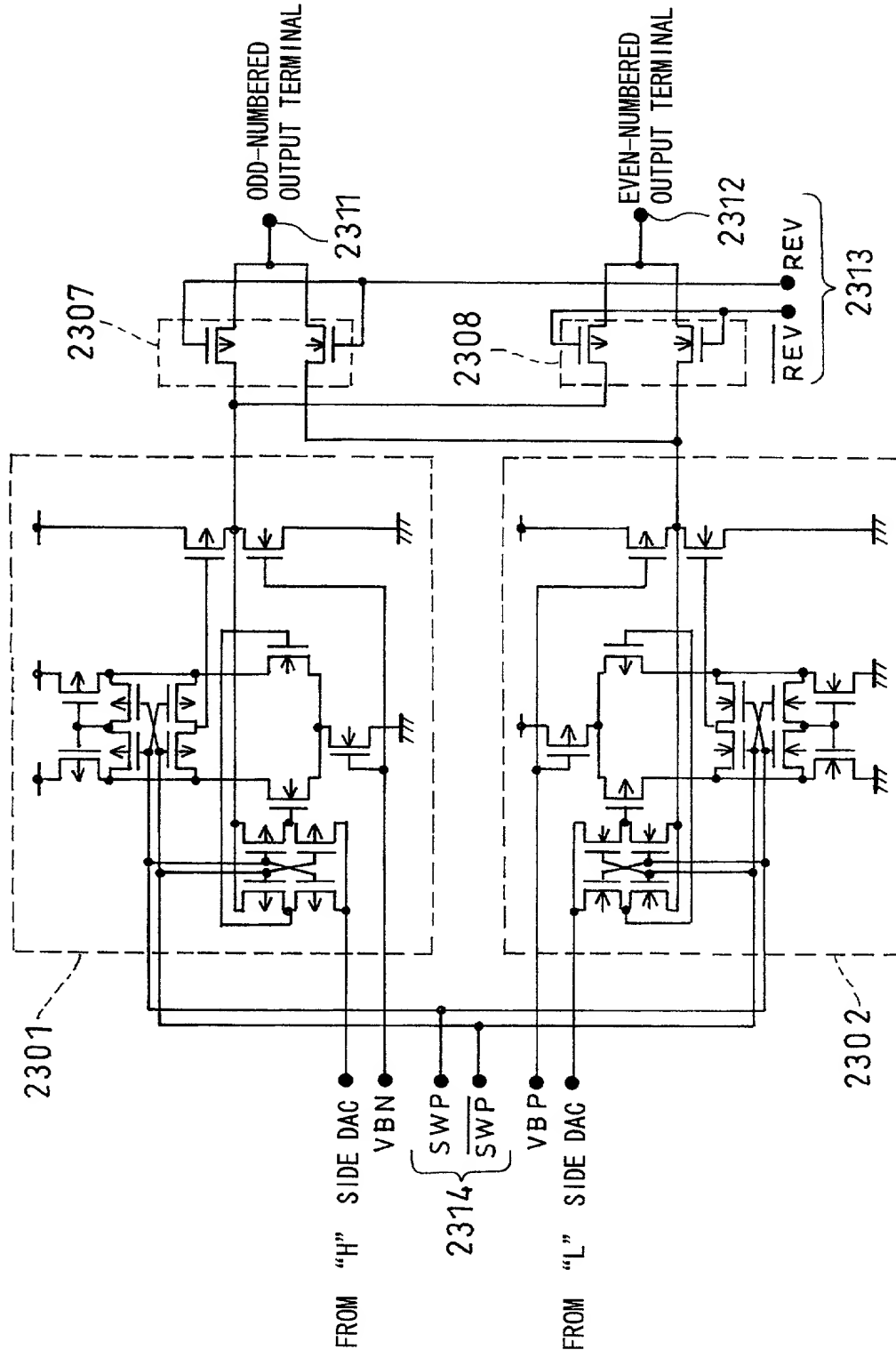
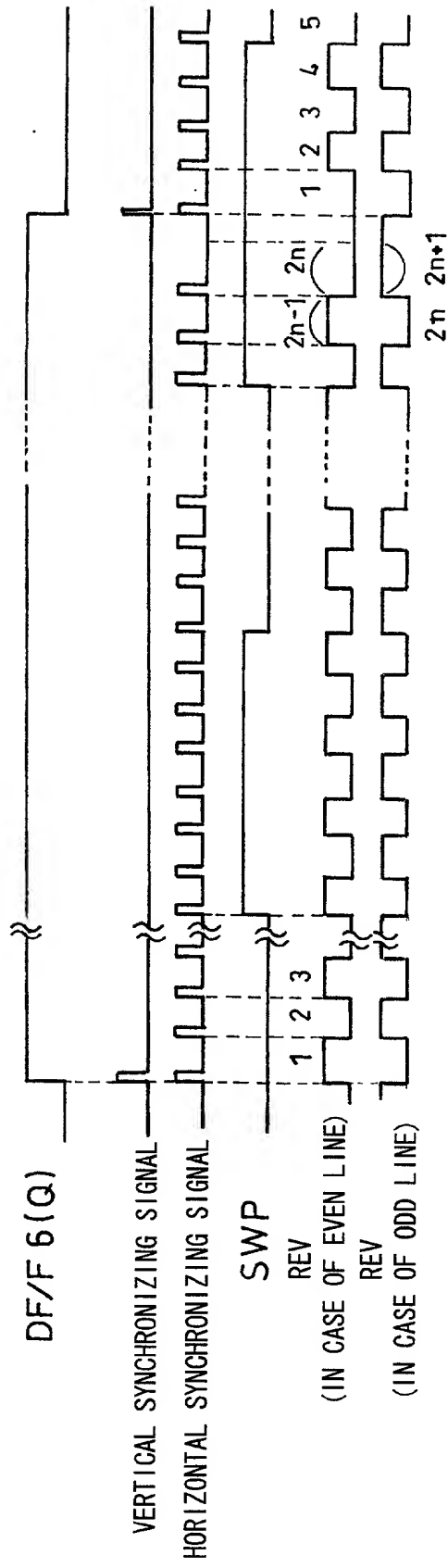


FIG. 4



[illegible]

		① FRAME									
		①	②	③	④	⑤	⑥	⑦	⑧	REV	SWP
EVEN LINE	①	+A	+B	+A	+B	+A	+B	+A	+B	L	L
	②	+B	+A	+B	+A	+B	+A	+B	+A	H	L
	③	+A	+B	+A	+B	+A	+B	+A	+B	L	L
	④	+B	+A	+B	+A	+B	+A	+B	+A	H	L
	⑤	+A	+B	+A	+B	+A	+B	+A	+B	L	L
	⑥	+B	+A	+B	+A	+B	+A	+B	+A	H	L
	⑦	+A	+B	+A	+B	+A	+B	+A	+B	L	L
	⑧	-B	-A	-B	-A	-B	-A	-B	-A	H	H

② FRAME

	①	②	③	④	⑤	⑥	⑦	⑧	REV	SWP
①	-B	-A	-B	-A	-B	-A	-B	-A	H	H
②	-A	-B	-A	-B	-A	-B	-A	-B	L	L
③	-B	-A	-B	-A	-B	-A	-B	-A	H	H
④	-A	-B	-A	-B	-A	-B	-A	-B	L	H
⑤	-B	-A	-B	-A	-B	-A	-B	-A	H	H
⑥	-A	-B	-A	-B	-A	-B	-A	-B	L	H
⑦	+B	+A	+B	+A	+B	+A	+B	+A	H	L
⑧	+A	+B	+A	+B	+A	+B	+A	+B	L	L

③ FRAME

	①	②	③	④	⑤	⑥	⑦	⑧	REV	SWP
①	+A	+B	+A	+B	+A	+B	+A	+B	L	L
②	+B	+A	+B	+A	+B	+A	+B	+A	H	H
③	+A	+B	+A	+B	+A	+B	+A	+B	L	L
④	+B	+A	+B	+A	+B	+A	+B	+A	H	L
⑤	+A	+B	+A	+B	+A	+B	+A	+B	L	L
⑥	-B	-A	-B	-A	-B	-A	-B	-A	L	H
⑦	-A	-B	-A	-B	-A	-B	-A	-B	L	H
⑧	-B	-A	-B	-A	-B	-A	-B	-A	L	H

④ FRAME

	①	②	③	④	⑤	⑥	⑦	⑧	REV	SWP
①	-B	-A	-B	-A	-B	-A	-B	-A	H	H
②	-A	-B	-A	-B	-A	-B	-A	-B	L	L
③	-B	-A	-B	-A	-B	-A	-B	-A	H	H
④	-A	-B	-A	-B	-A	-B	-A	-B	L	L
⑤	+B	+A	+B	+A	+B	+A	+B	+A	H	H
⑥	+A	+B	+A	+B	+A	+B	+A	+B	L	L
⑦	+B	+A	+B	+A	+B	+A	+B	+A	H	L
⑧	+A	+B	+A	+B	+A	+B	+A	+B	L	L

⑤ FRAME

	①	②	③	④	⑤	⑥	⑦	⑧	REV	SMP
①	+A	+B	+A	+B	+A	+B	+A	+B	L	L
②	+B	+A	+B	+A	+B	+A	+B	+A	H	H
③	+A	+B	+A	+B	+A	+B	+A	+B	L	L
④	-B	-A	-B	-A	-B	-A	-B	-A	H	H
⑤	-A	-B	-A	-B	-A	-B	-A	-B	L	L
⑥	-B	-A	-B	-A	-B	-A	-B	-A	H	H
⑦	-A	-B	-A	-B	-A	-B	-A	-B	L	L
⑧	-B	-A	-B	-A	-B	-A	-B	-A	H	H

⑥ FRAME

	①	②	③	④	⑤	⑥	⑦	⑧	REV	SWP
①	-B	-A	-B	-A	-B	-A	-B	-A	H	H
②	-A	-B	-A	-B	-A	-B	-A	-B	H	H
③	+B	+A	+B	+A	+B	+A	+B	+A	L	L
④	+A	+B	+A	+B	+A	+B	+A	+B	L	L
⑤	+B	+A	+B	+A	+B	+A	+B	+A	H	H
⑥	+A	+B	+A	+B	+A	+B	+A	+B	L	L
⑦	+B	+A	+B	+A	+B	+A	+B	+A	H	L
⑧	+A	+B	+A	+B	+A	+B	+A	+B	L	L

⑦ FRAME

	①	②	③	④	⑤	⑥	⑦	⑧	REV	SWP
①	+A	+B	-A	+B	+A	+B	+A	+B	L	L
②	-B	-A	-B	-A	-B	-A	-B	-A	L	L
③	-A	-B	-A	-B	-A	-B	-A	-B	L	H
④	-B	-A	-B	-A	-B	-A	-B	-A	H	L
⑤	-A	-B	-A	-B	-A	-B	-A	-B	H	H
⑥	-B	-A	-B	-A	-B	-A	-B	-A	L	H
⑦	-A	-B	-A	-B	-A	-B	-A	-B	L	H
⑧	-B	-A	-B	-A	-B	-A	-B	-A	H	H

A: VOLTAGE HAVING POSITIVE POLARITY

B: VOLTAGE HAVING NEGATIVE POLARITY

+ : POSITIVE OFFSET

-:NEGATIVE OFFSET

⑧ FRAME

	①	②	③	④	⑤	⑥	⑦	⑧	REV	SWP
①	+B	+A	+B	+A	+B	+A	+B	+A	H	L
②	+A	+B	+A	+B	+A	+B	+A	+B	L	L
③	+B	+A	+B	+A	+B	+A	+B	+A	H	L
④	+A	+B	+A	+B	+A	+B	+A	+B	L	L
⑤	+B	+A	+B	+A	+B	+A	+B	+A	H	L
⑥	+A	+B	+A	+B	+A	+B	+A	+B	L	L
⑦	+B	+A	+B	+A	+B	+A	+B	+A	H	L
⑧	-A	-B	-A	-B	-A	-B	-A	-B	L	H

⑨ FRAME

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	REV	SWP
①	-A	-B	-A	-B	-A	-B	-A	-B	L	H
②	-B	-A	-B	-A	-B	-A	-B	-A	H	H
③	-A	-B	-A	-B	-A	-B	-A	-B	L	H
④	-B	-A	-B	-A	-B	-A	-B	-A	H	H
⑤	-A	-B	-A	-B	-A	-B	-A	-B	L	H
⑥	-B	-A	-B	-A	-B	-A	-B	-A	H	H
⑦	+A	+B	+A	+B	+A	+B	+A	+B	L	L
⑧	+B	+A	+B	+A	+B	+A	+B	+A	H	L

FRAME									REV	SWP
	①	②	③	④	⑤	⑥	⑦	⑧		
①	+B	+A	+B	+A	+B	+A	+B	+A	H	L
②	+A	+B	+A	+B	+A	+B	+A	+B	H	L
③	+B	+A	+B	+A	+B	+A	+B	+A	L	L
④	+A	+B	+A	+B	+A	+B	+A	+B	L	L
⑤	+B	+A	+B	+A	+B	+A	+B	+A	H	L
⑥	-A	-B	-A	-B	-A	-B	-A	-B	L	H
⑦	-B	-A	-B	-A	-B	-A	-B	-A	L	H
⑧	-A	-B	-A	-B	-A	-B	-A	-B	H	L

FRAME									REV	SWP
	①	②	③	④	⑤	⑥	⑦	⑧		
①	-A	-B	-A	-B	-A	-B	-A	-B	L	H
②	-B	-A	-B	-A	-B	-A	-B	-A	L	H
③	-A	-B	-A	-B	-A	-B	-A	-B	L	H
④	-B	-A	-B	-A	-B	-A	-B	-A	L	H
⑤	+A	+B	+A	+B	+A	+B	+A	+B	L	L
⑥	+B	+A	+B	+A	+B	+A	+B	+A	L	L
⑦	+A	+B	+A	+B	+A	+B	+A	+B	L	L
⑧	+B	+A	+B	+A	+B	+A	+B	+A	L	L

⑫ FRAME									REV	SWP
①	+B	+A	+B	+A	+B	+A	+B	+A	H	L
②	+A	+B	+A	+B	+A	+B	+A	+B	L	L
③	+B	+A	+B	+A	+B	+A	+B	+A	H	L
④	-A	-B	-A	-B	-A	-B	-A	-B	L	H
⑤	-B	-A	-B	-A	-B	-A	-B	-A	H	H
⑥	-A	-B	-A	-B	-A	-B	-A	-B	L	H
⑦	-B	-A	-B	-A	-B	-A	-B	-A	H	H
⑧	-A	-B	-A	-B	-A	-B	-A	-B	L	H

⑬ FRAME									REV	SWP
	①	②	③	④	⑤	⑥	⑦	⑧		
①	-A	-B	-A	-B	-A	-B	-A	-B	L	H
②	-B	-A	-B	-A	-B	-A	-B	-A	H	H
③	+A	+B	+A	+B	+A	+B	+A	+B	L	L
④	+B	+A	+B	+A	+B	+A	+B	+A	H	L
⑤	+A	+B	+A	+B	+A	+B	+A	+B	L	L
⑥	+B	+A	+B	+A	+B	+A	+B	+A	H	L
⑦	+A	+B	+A	+B	+A	+B	+A	+B	L	L
⑧	+B	+A	+B	+A	+B	+A	+B	+A	H	L

⑭	FRAME									REV	SWP
	①	②	③	④	⑤	⑥	⑦	⑧			
	①	+B	+A	+B	+A	+B	+A	+A	H	L	H
	②	-A	-B	-A	-B	-A	-B	-A	L	L	H
	③	-B	-A	-B	-A	-B	-A	-B	L	H	H
	④	-A	-B	-A	-B	-A	-B	-A	L	H	H
	⑤	-B	-A	-B	-A	-B	-A	-B	L	H	H
	⑥	-A	-B	-A	-B	-A	-B	-A	L	H	H
	⑦	-B	-A	-B	-A	-B	-A	-A	H	H	H
	⑧	-A	-B	-A	-B	-A	-B	-A	L	H	H

F I G. 6

VOLTAGE APPLIED TO PIXEL①—①

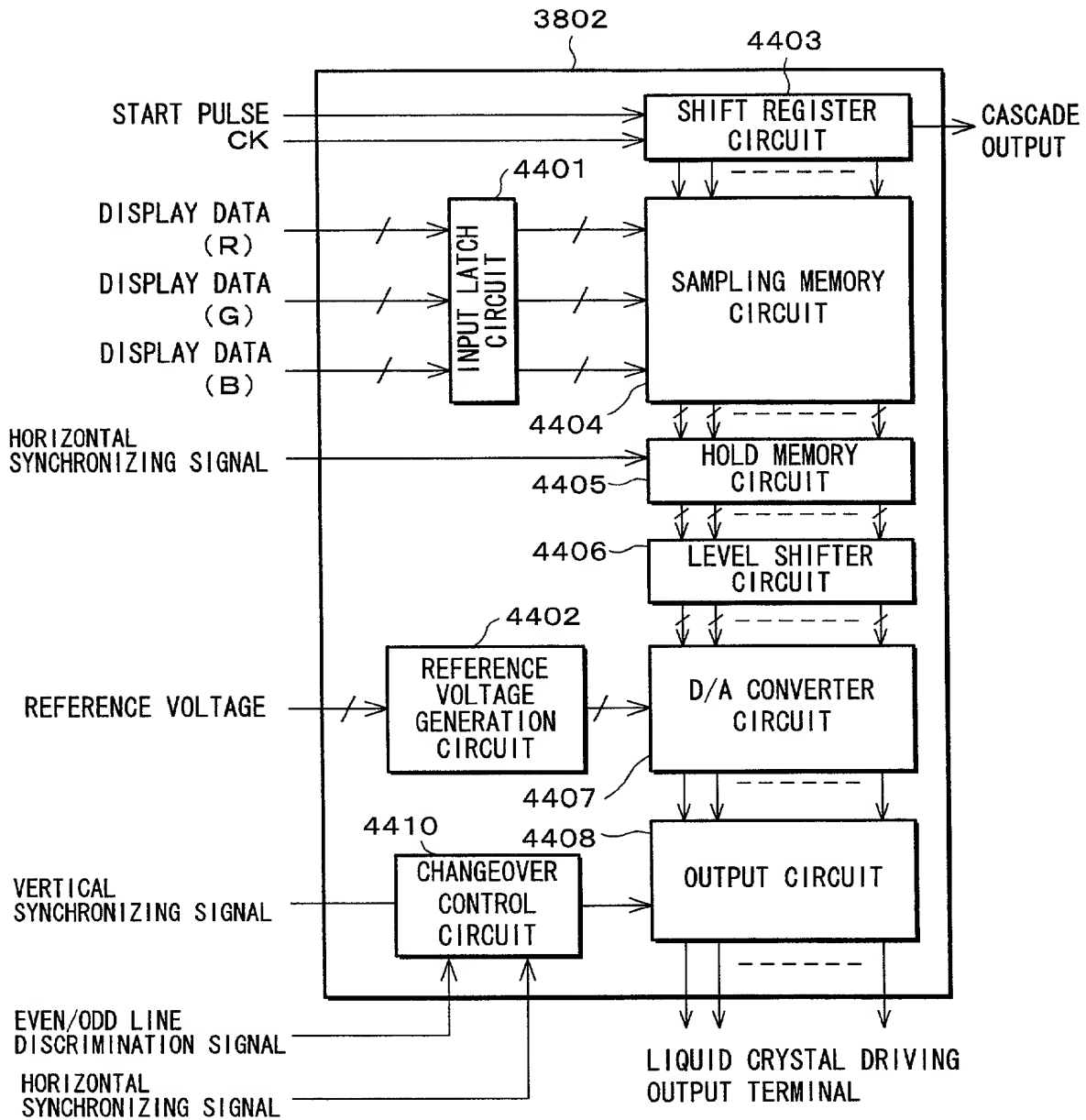
FRAME	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭
	+A	-B	+A	-B	+A	-B	+A	+B	-A	+B	-A	+B	-A	+B

Diagram showing two 7-frame intervals:

Interval 1 (Frames 1-7): +A, -B, +A, -B, +A, -B, +A

Interval 2 (Frames 8-14): +B, -A, +B, -A, +B, -A, +B

FIG. 7



F I G. 8

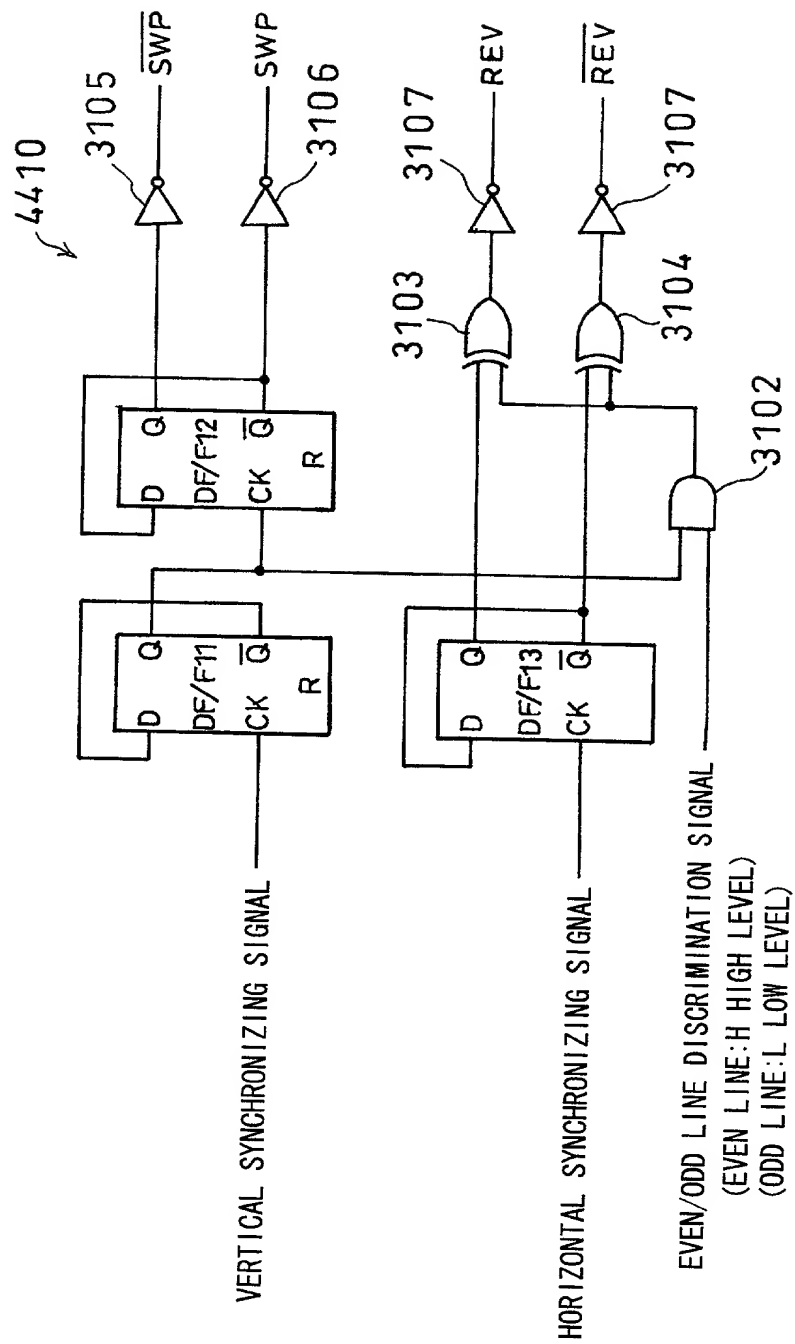


FIG. 9

1 FRAME

	①	②	③	④	⑤	⑥	⑦	⑧	REV	SWP
①	+A	+B	+A	+B	+A	+B	+A	+B	L	L
②	+B	+A	+B	+A	+B	+A	+B	+A	H	L
③	+A	+B	+A	+B	+A	+B	+A	+B	L	L
④	+B	+A	+B	+A	+B	+A	+B	+A	H	L
⑤	+A	+B	+A	+B	+A	+B	+A	+B	L	L
⑥	+B	+A	+B	+A	+B	+A	+B	+A	H	L
⑦	+A	+B	+A	+B	+A	+B	+A	+B	L	L
⑧	+B	+A	+B	+A	+B	+A	+B	+A	H	L

2 FRAME

	①	②	③	④	⑤	⑥	⑦	⑧	REV	SWP
①	+B	+A	+B	+A	+B	+A	+B	+A	H	L
②	+A	+B	+A	+B	+A	+B	+A	+B	L	L
③	+B	+A	+B	+A	+B	+A	+B	+A	H	L
④	+A	+B	+A	+B	+A	+B	+A	+B	L	L
⑤	+B	+A	+B	+A	+B	+A	+B	+A	H	L
⑥	+A	+B	+A	+B	+A	+B	+A	+B	L	L
⑦	+B	+A	+B	+A	+B	+A	+B	+A	H	L
⑧	+A	+B	+A	+B	+A	+B	+A	+B	L	L

3 FRAME

	①	②	③	④	⑤	⑥	⑦	⑧	REV	SWP
①	-A	-B	-A	-B	-A	-B	-A	-B	L	H
②	-B	-A	-B	-A	-B	-A	-B	-A	H	H
③	-A	-B	-A	-B	-A	-B	-A	-B	L	H
④	-B	-A	-B	-A	-B	-A	-B	-A	H	H
⑤	-A	-B	-A	-B	-A	-B	-A	-B	L	H
⑥	-B	-A	-B	-A	-B	-A	-B	-A	H	H
⑦	-A	-B	-A	-B	-A	-B	-A	-B	L	H
⑧	-B	-A	-B	-A	-B	-A	-B	-A	H	H

4 FRAME

	①	②	③	④	⑤	⑥	⑦	⑧	REV	SWP
①	-B	-A	-B	-A	-B	-A	-B	-A	H	H
②	-A	-B	-A	-B	-A	-B	-A	-B	L	H
③	-B	-A	-B	-A	-B	-A	-B	-A	H	H
④	-A	-B	-A	-B	-A	-B	-A	-B	L	H
⑤	-B	-A	-B	-A	-B	-A	-B	-A	H	H
⑥	-A	-B	-A	-B	-A	-B	-A	-B	L	H
⑦	-A	-B	-A	-B	-A	-B	-A	-B	H	H
⑧	-B	-A	-B	-A	-B	-A	-B	-A	L	H

FIG. 10

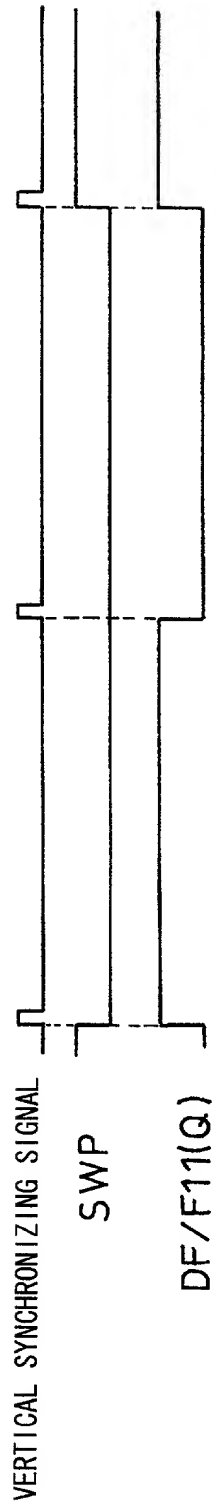
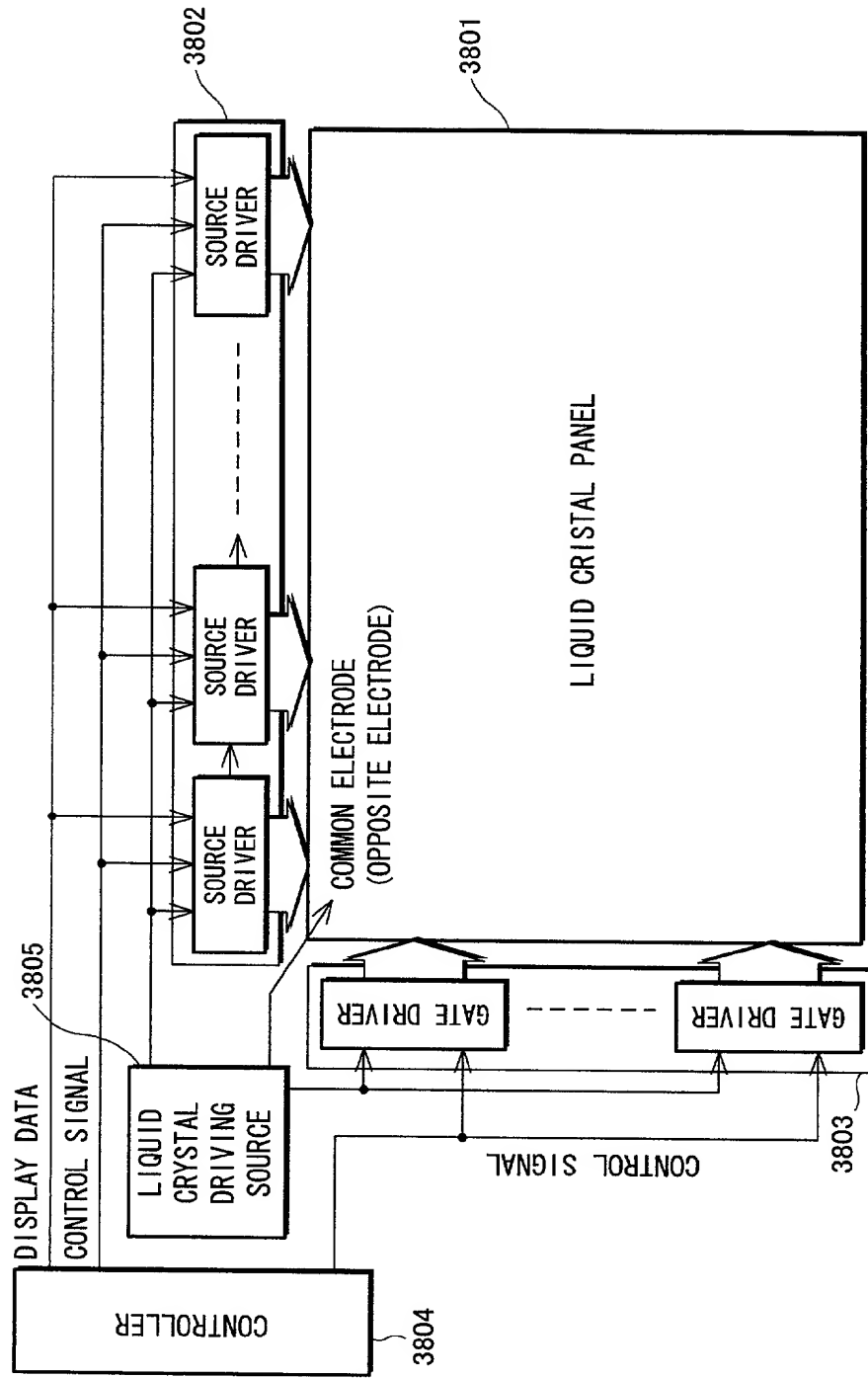


FIG. 11



F I G. 1 2

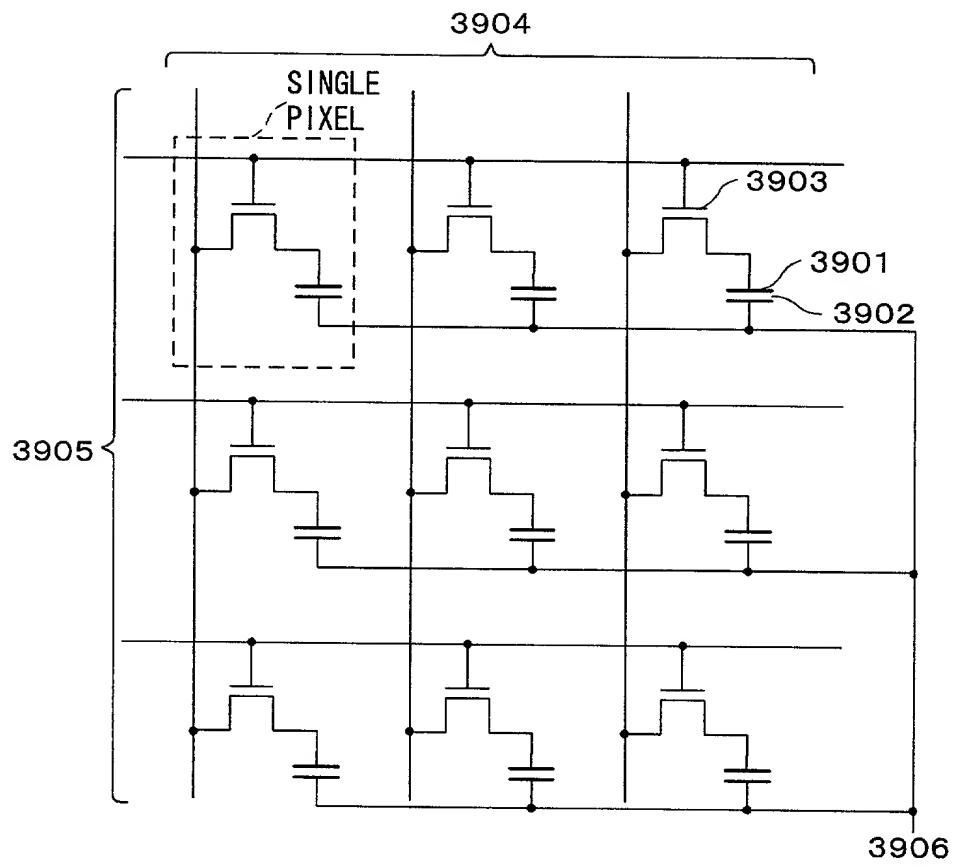


FIG. 13

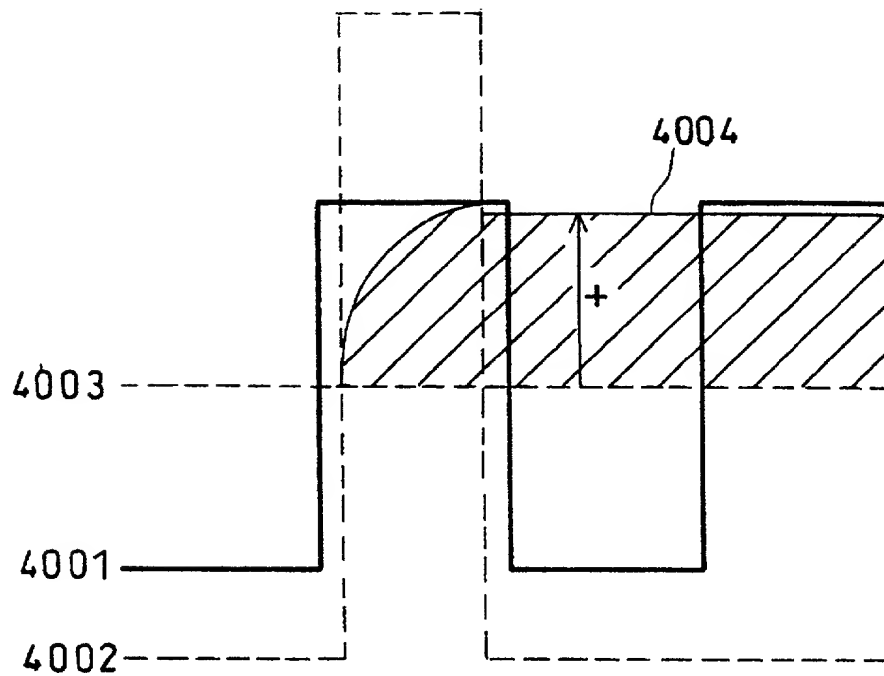


FIG. 14

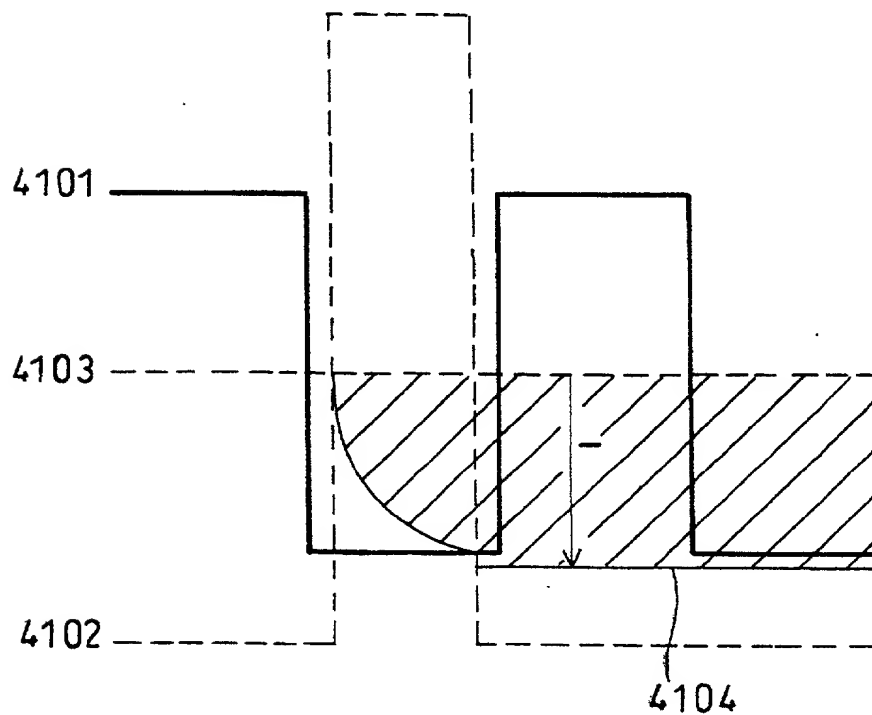


FIG. 15

SOURCE DRIVER OUTPUT

↓	↓	↓	↓	↓	↓
+	-	+	-	+	-
-	+	-	+	-	+
+	-	+	-	+	-
-	+	-	+	-	+
+	-	+	-	+	-
-	+	-	+	-	+
+	-	+	-	+	-
-	+	-	+	-	+

R G B R G B

INVERT FOR EVERY FRAME



SOURCE DRIVER OUTPUT

↓	↓	↓	↓	↓	↓
-	+	-	+	-	+
+	-	+	-	+	-
-	+	-	+	-	+
+	-	+	-	+	-
-	+	-	+	-	+
+	-	+	-	+	-
-	+	-	+	-	+
+	-	+	-	+	-

R G B R G B

FIG. 16

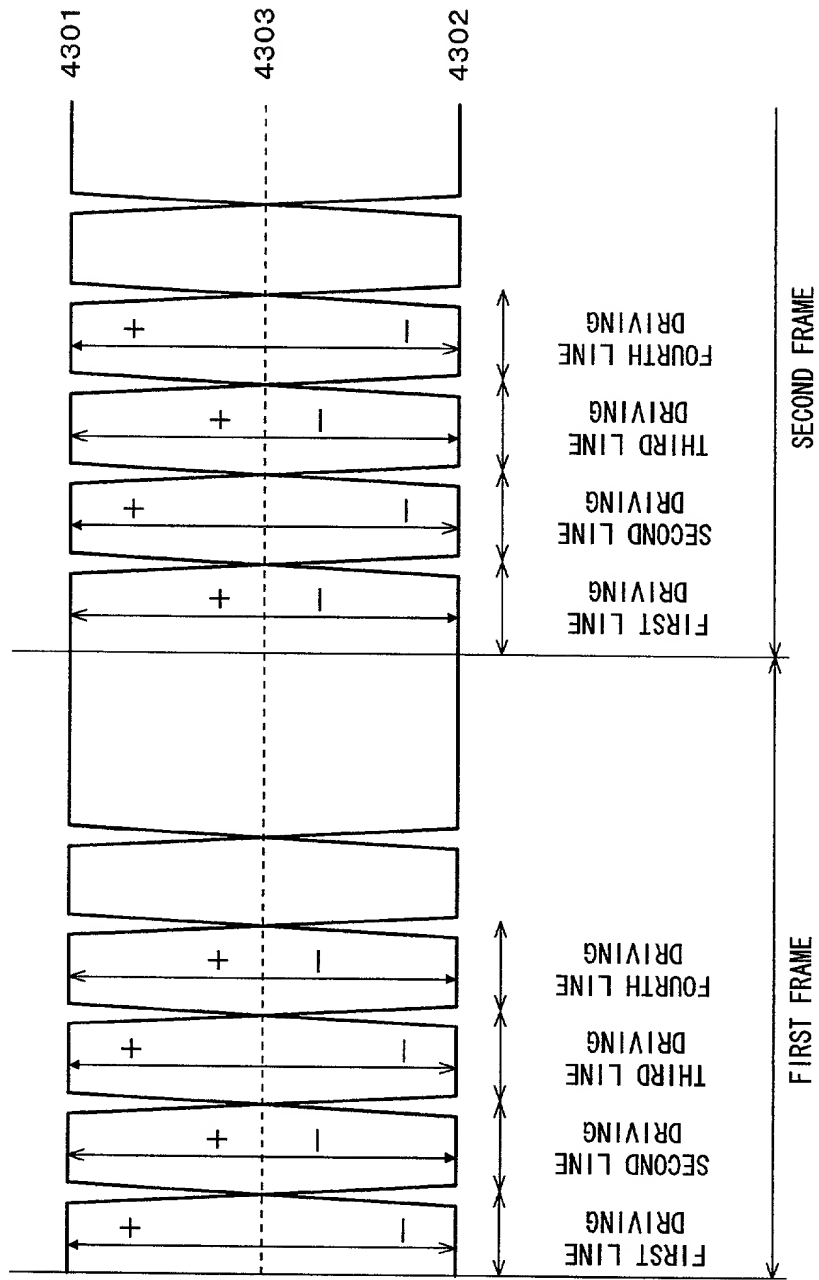


FIG. 17

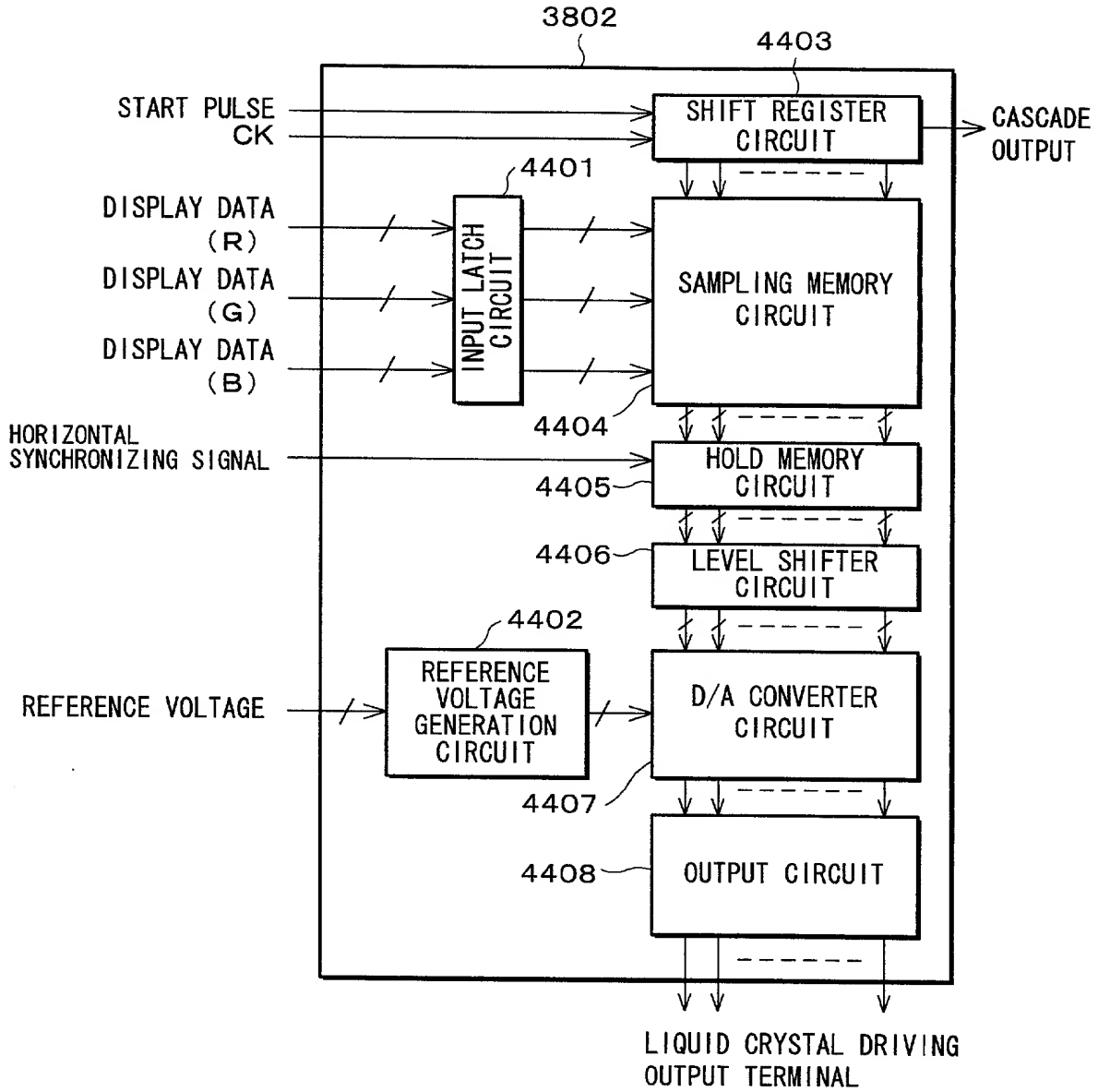


FIG. 18 (a)

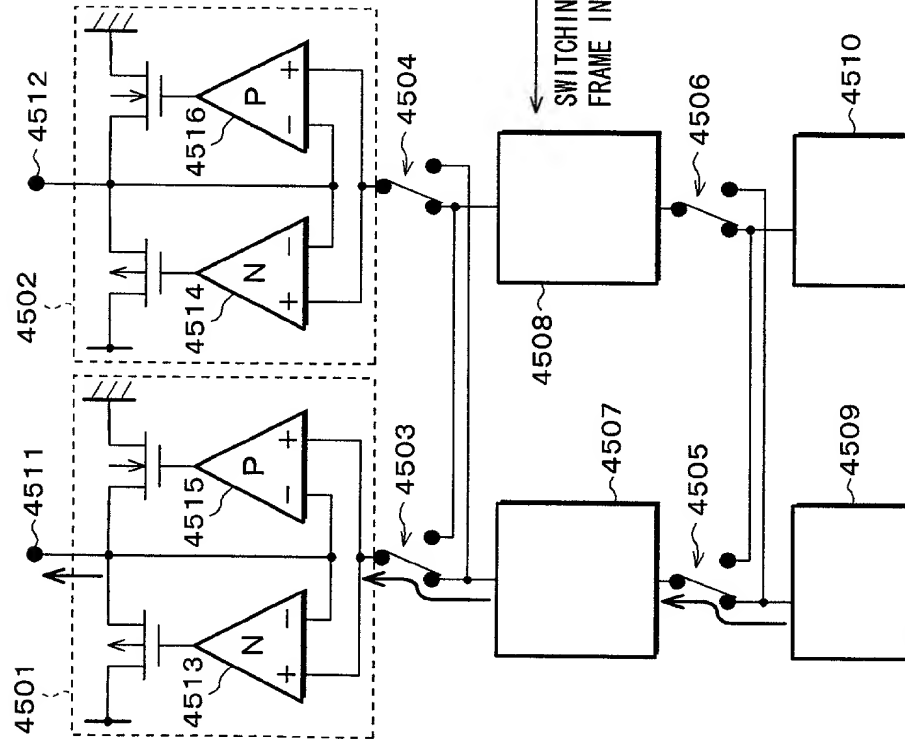


FIG. 18 (b)

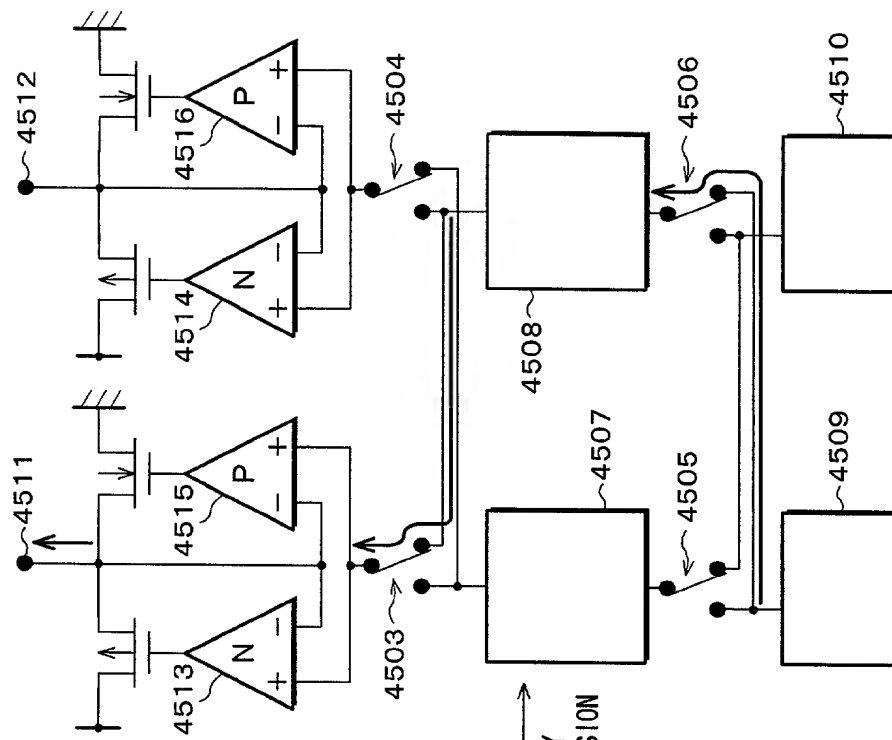


FIG. 19 (a)

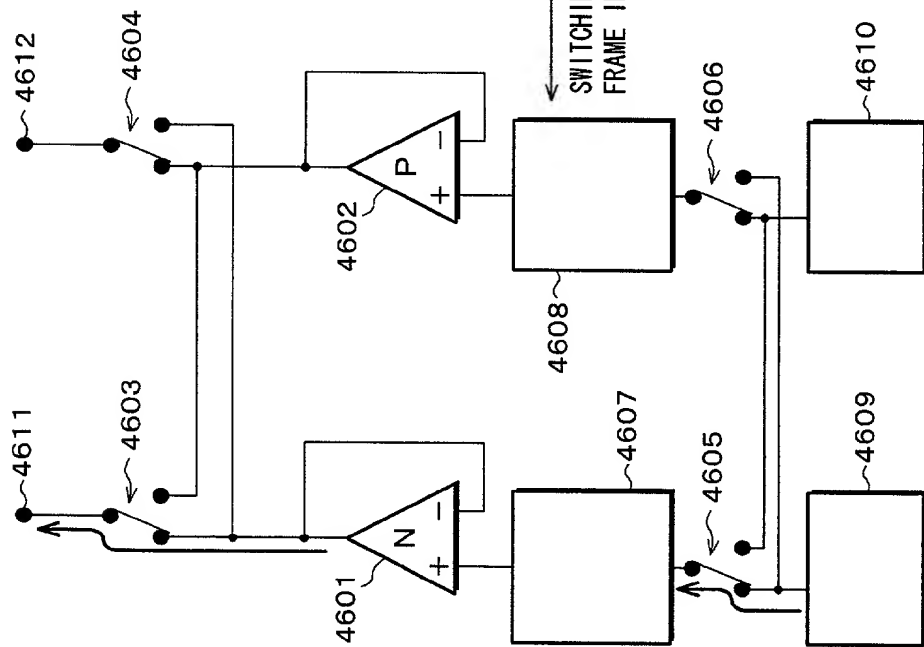


FIG. 19 (b)

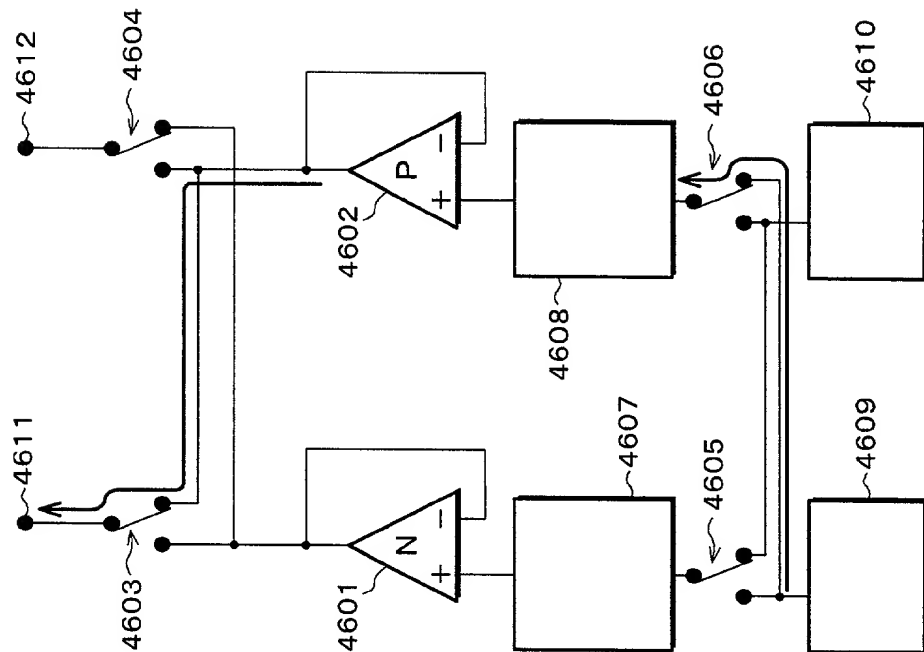
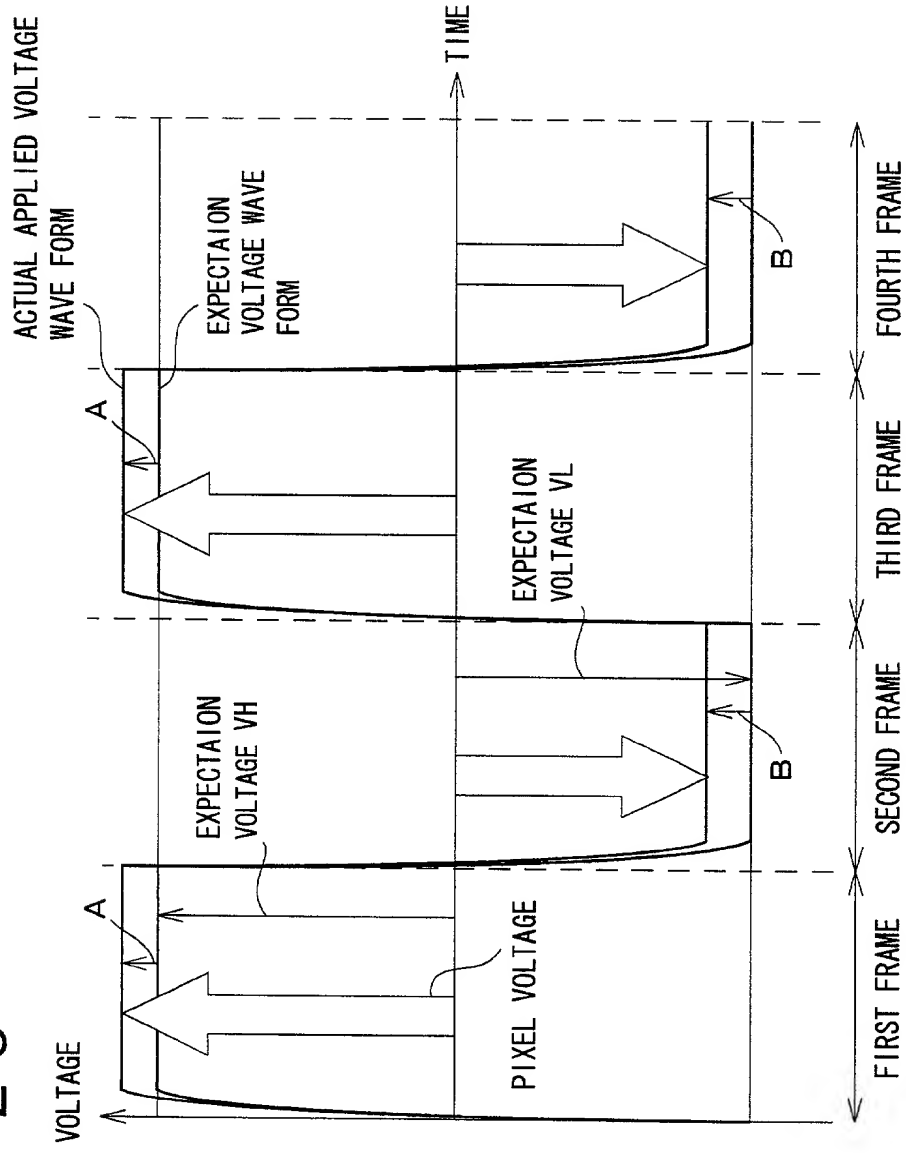
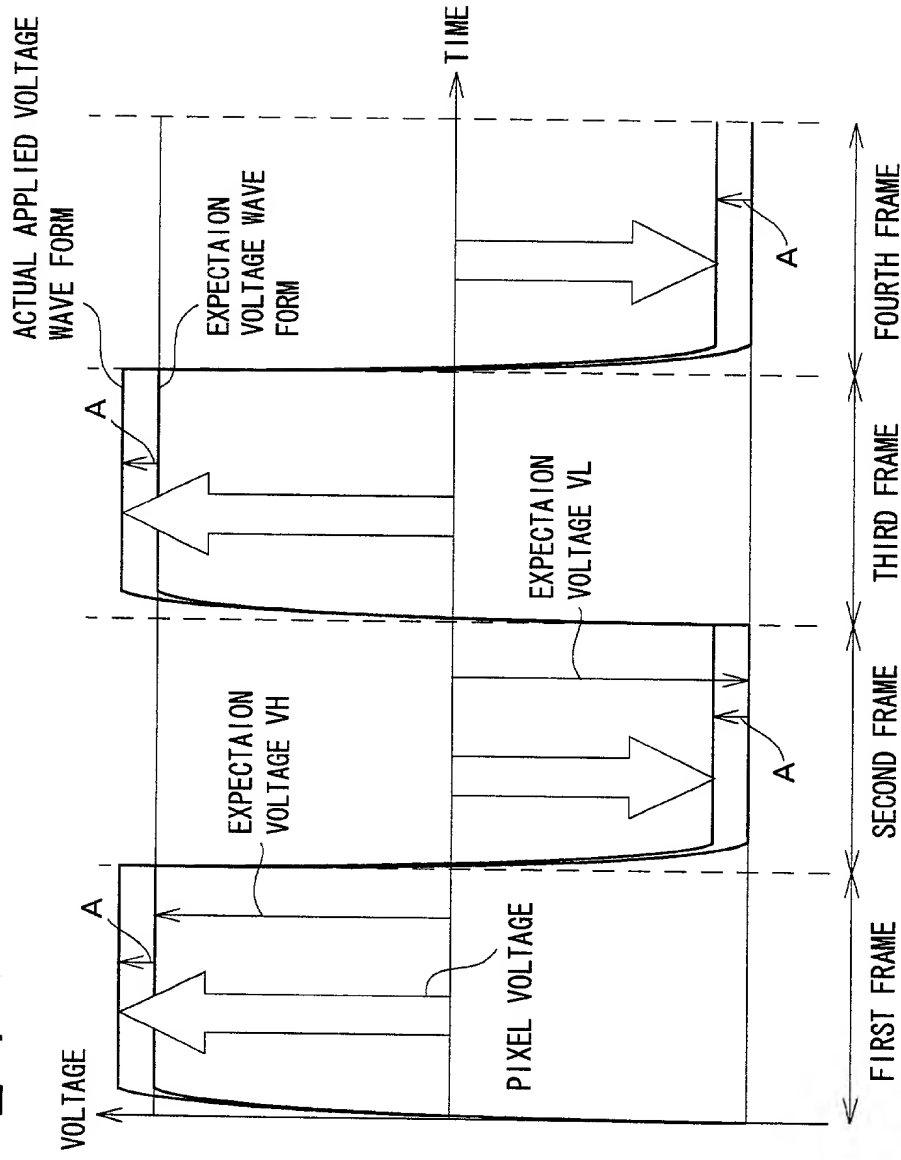


FIG. 20



$$\begin{aligned} \text{AVERAGE PIXEL VOLTAGES} &= [(VH+A) + (VL-B) + (VH+A) + (VL-B)] \div 4 \\ &= \frac{VH+VL}{2} + \frac{A-B}{2} \end{aligned}$$

FIG. 21



$$\begin{aligned} \text{AVERAGE PIXEL VOLTAGES} &= [(VH+A) + (VL-A) + (VH+A) + (VL-A)] \div 4 \\ &= \frac{VH+VL}{2} \end{aligned}$$

FIG. 22

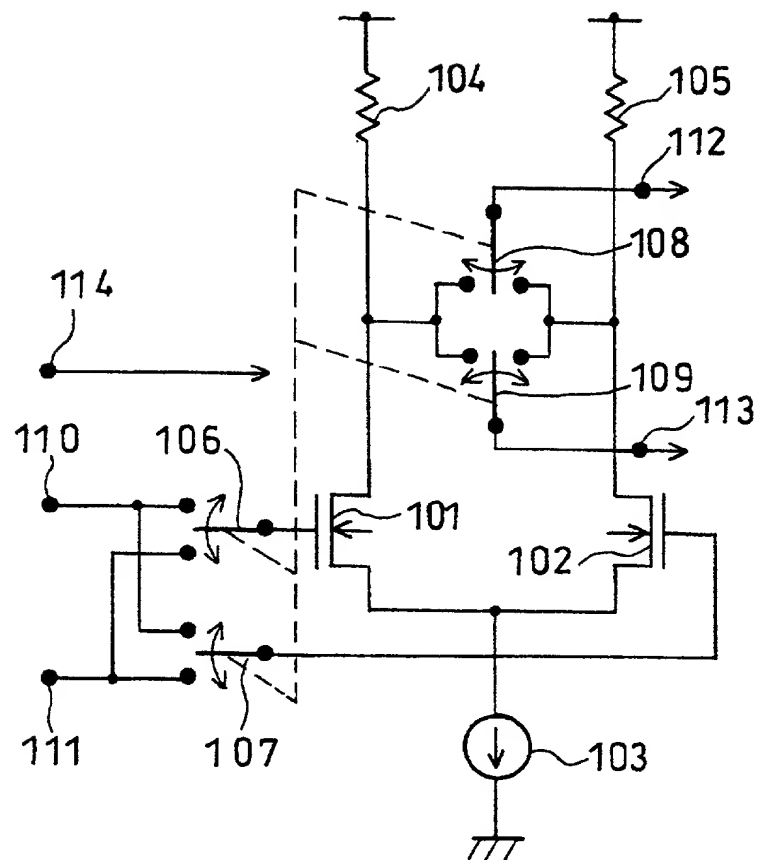


FIG. 23

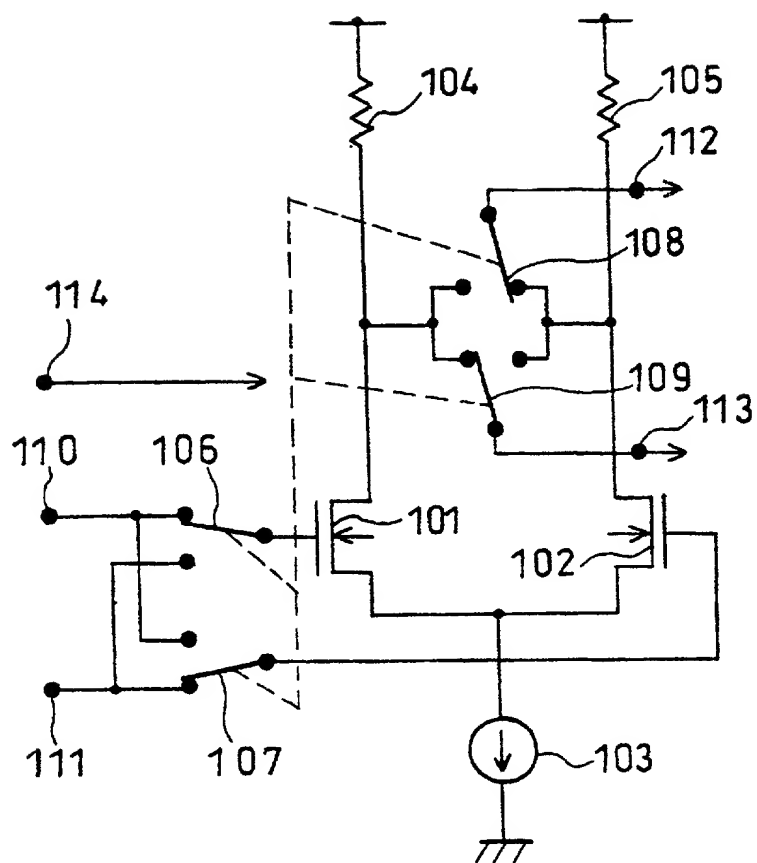


FIG. 24

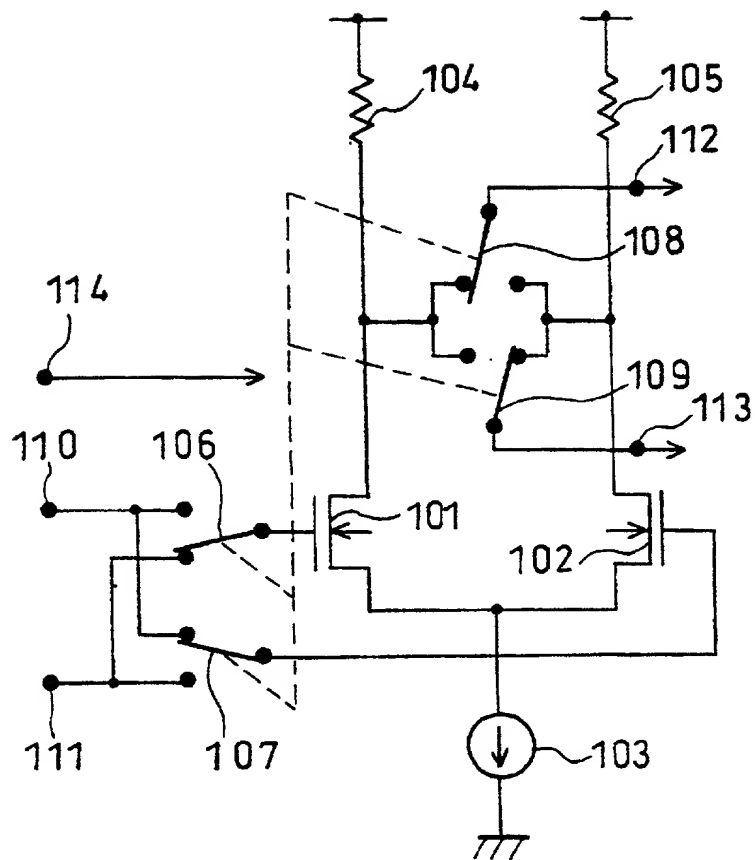


FIG. 25

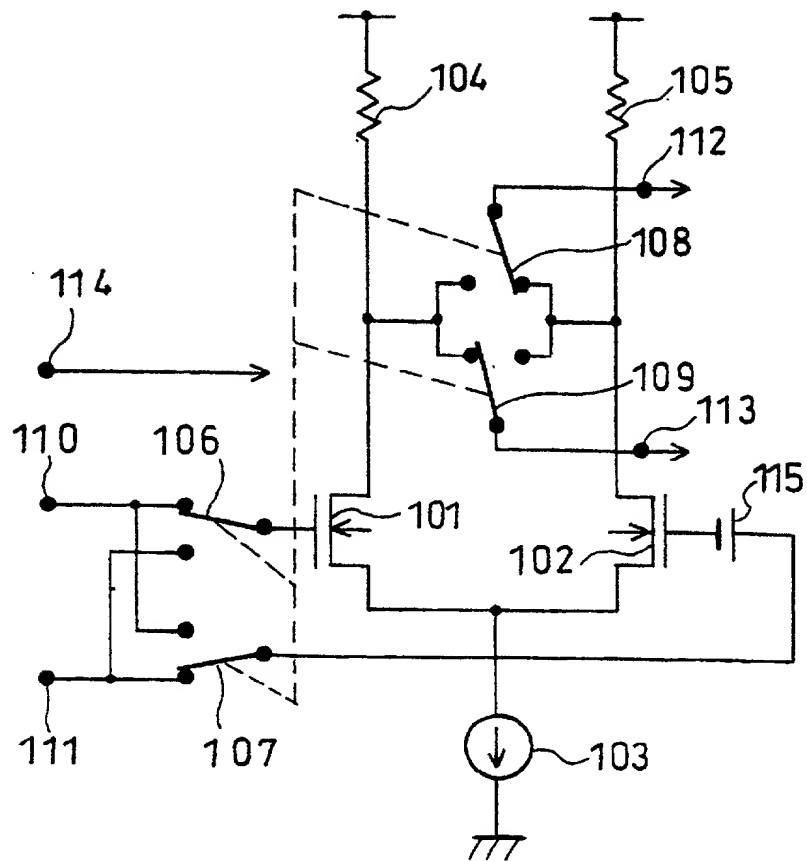


FIG. 26

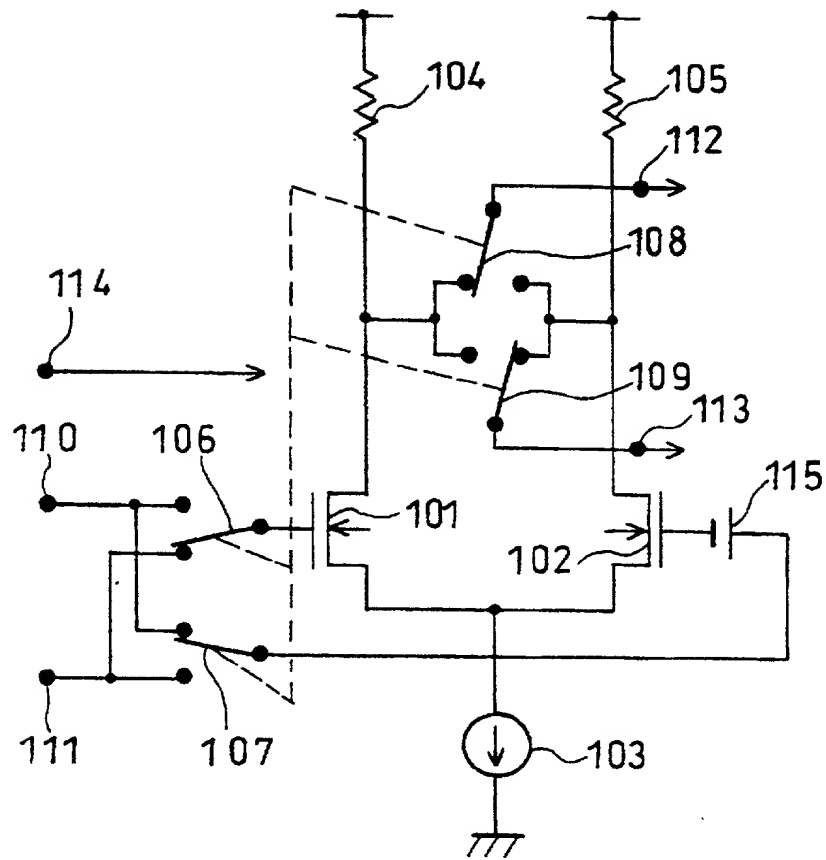


FIG. 27

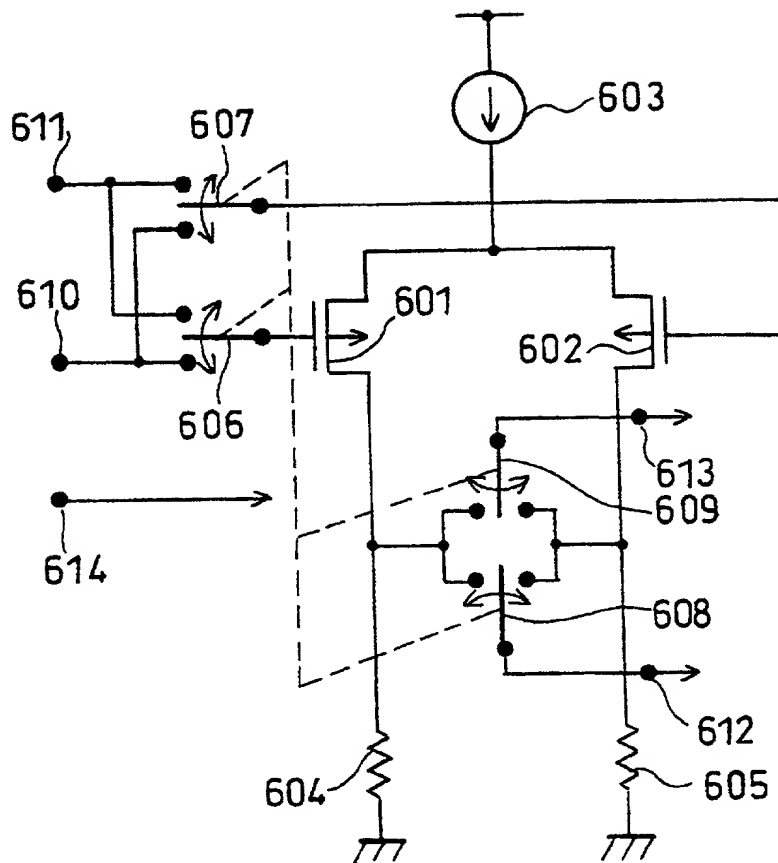


FIG. 28

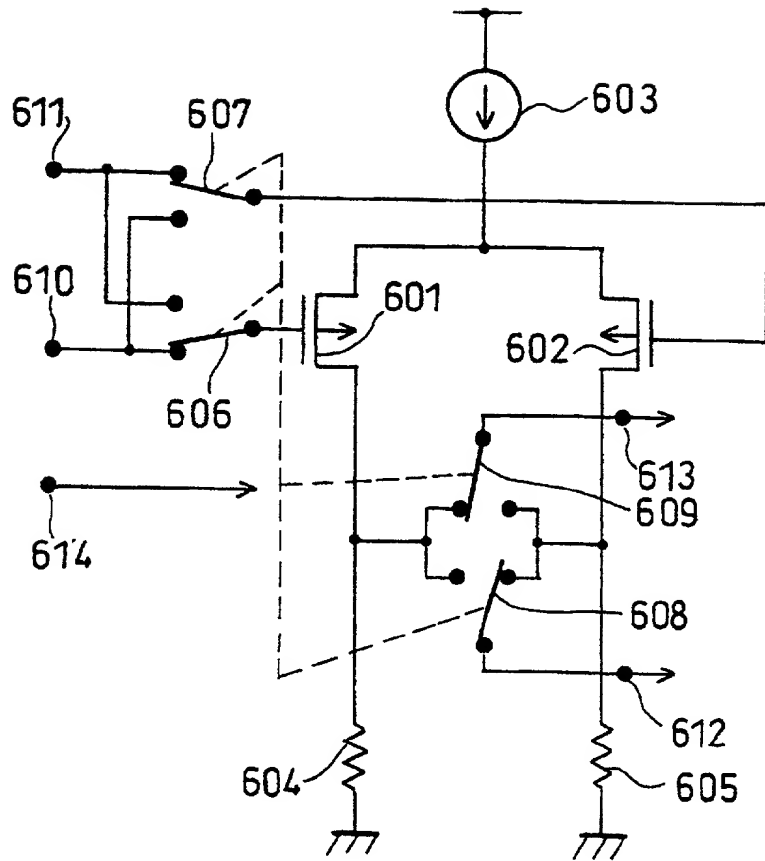


FIG. 29

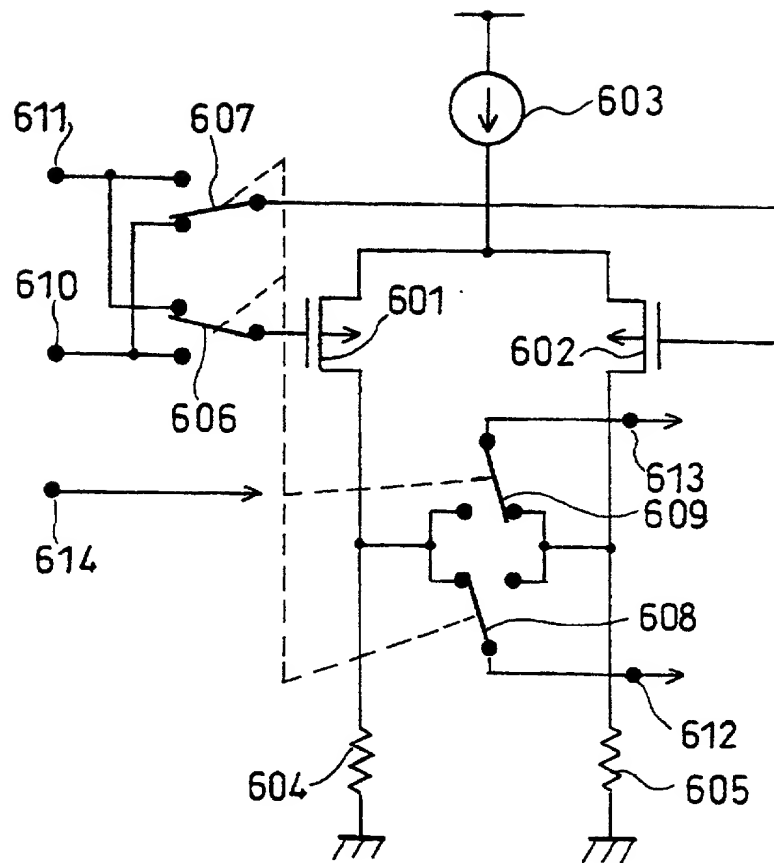


FIG. 30

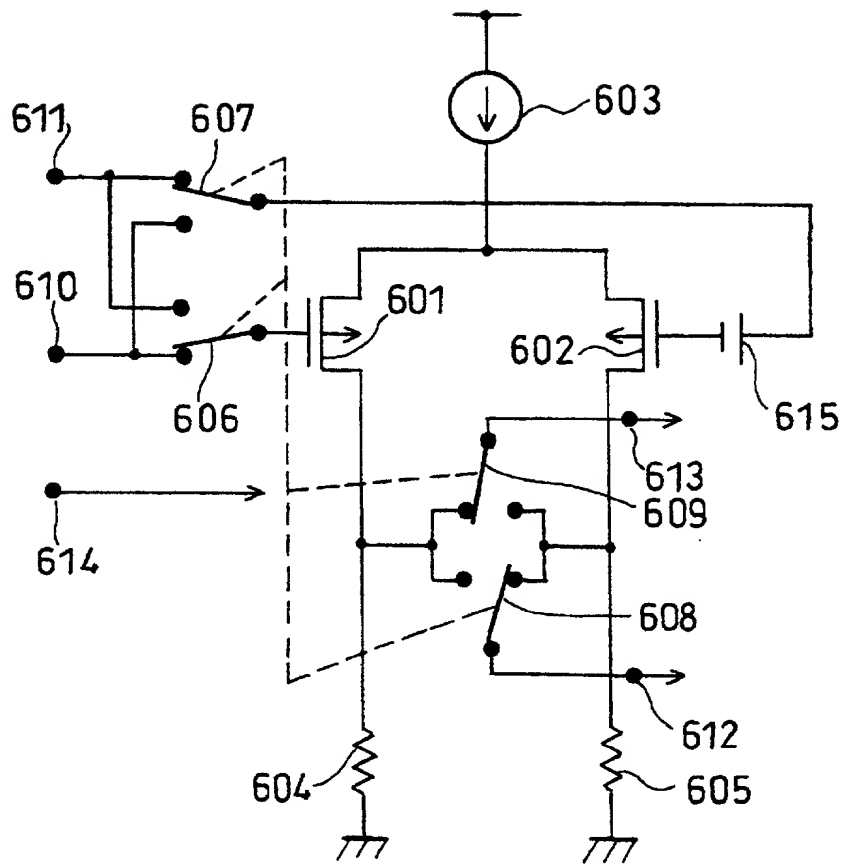


FIG. 32

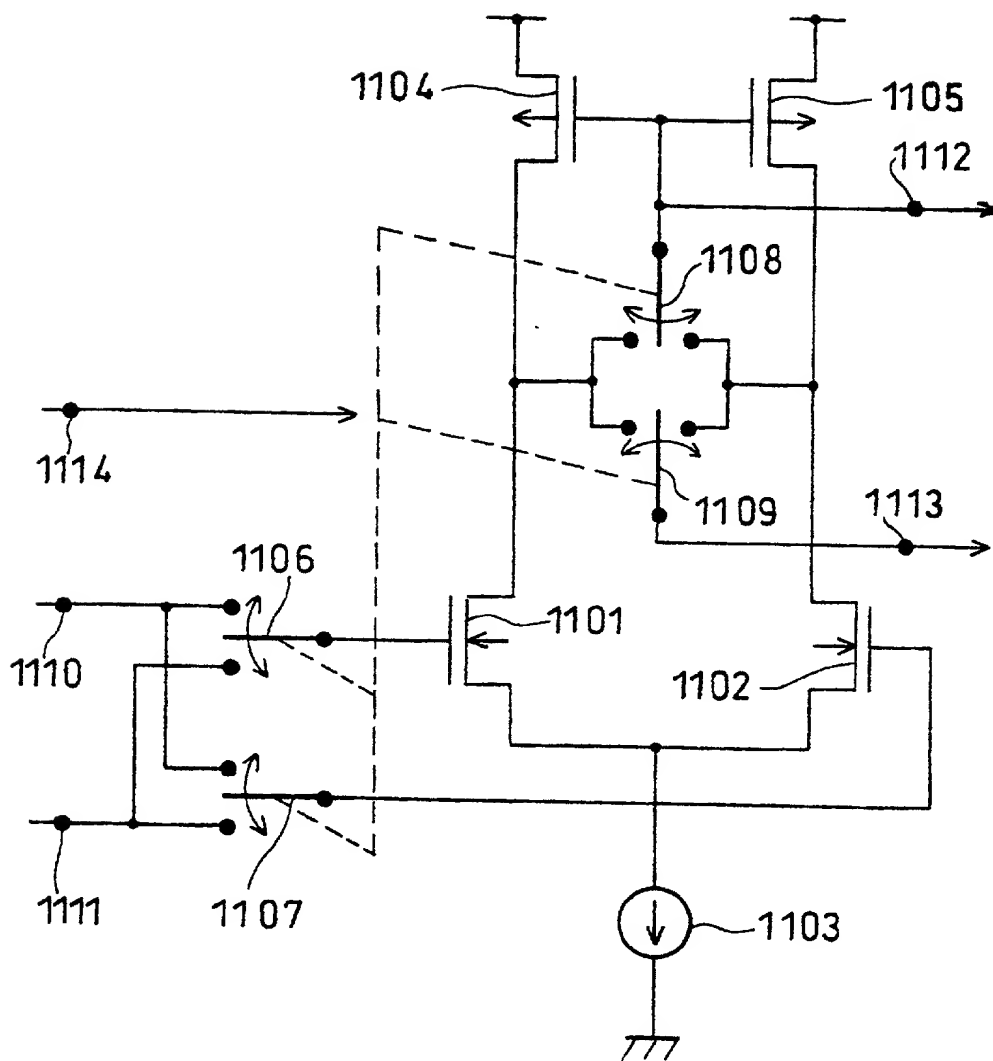


FIG. 33

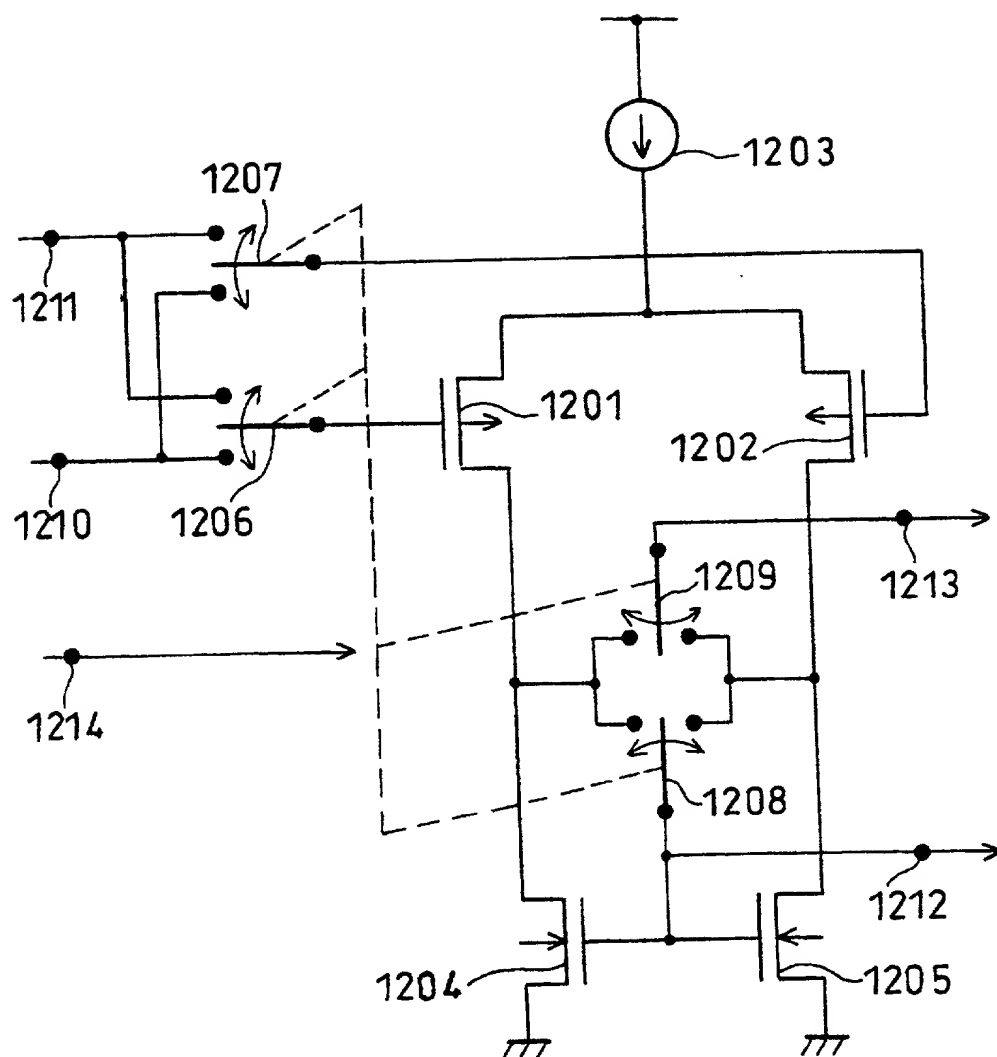


FIG. 34

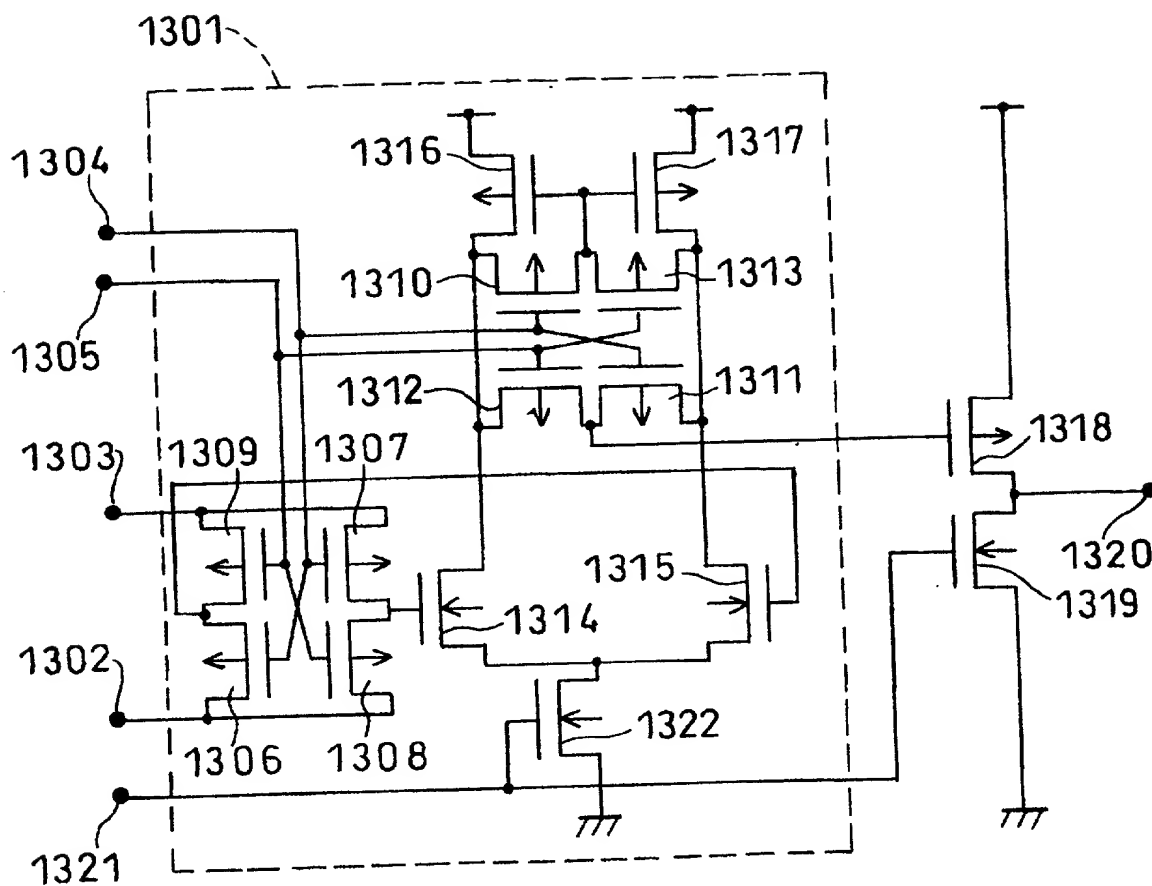


FIG. 35

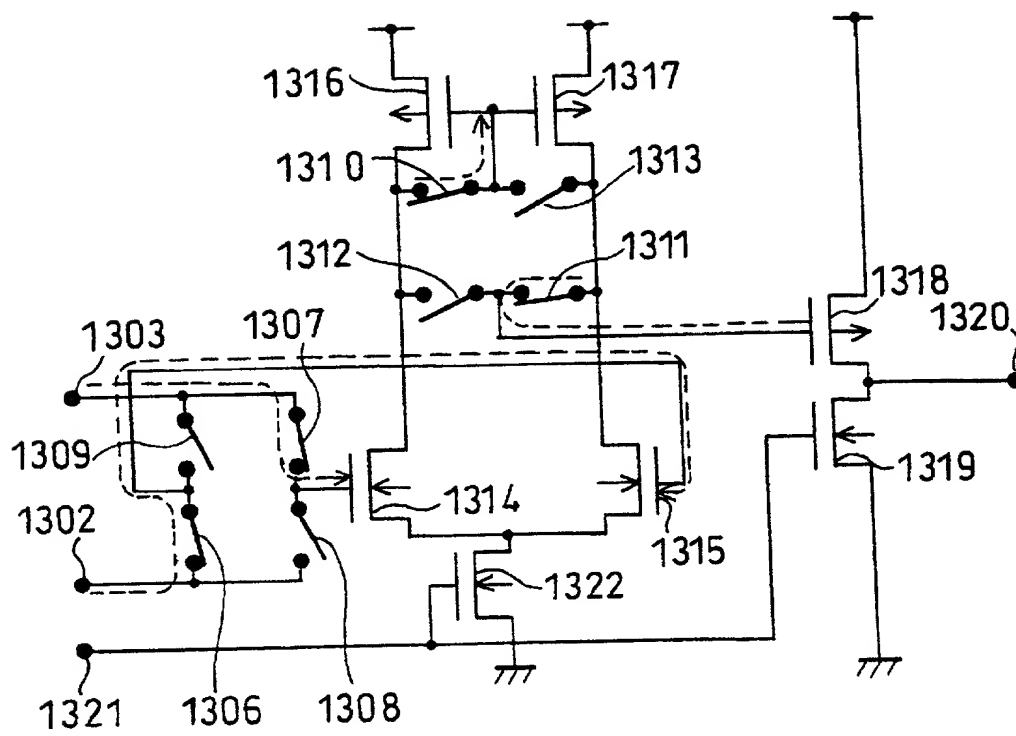


FIG. 36

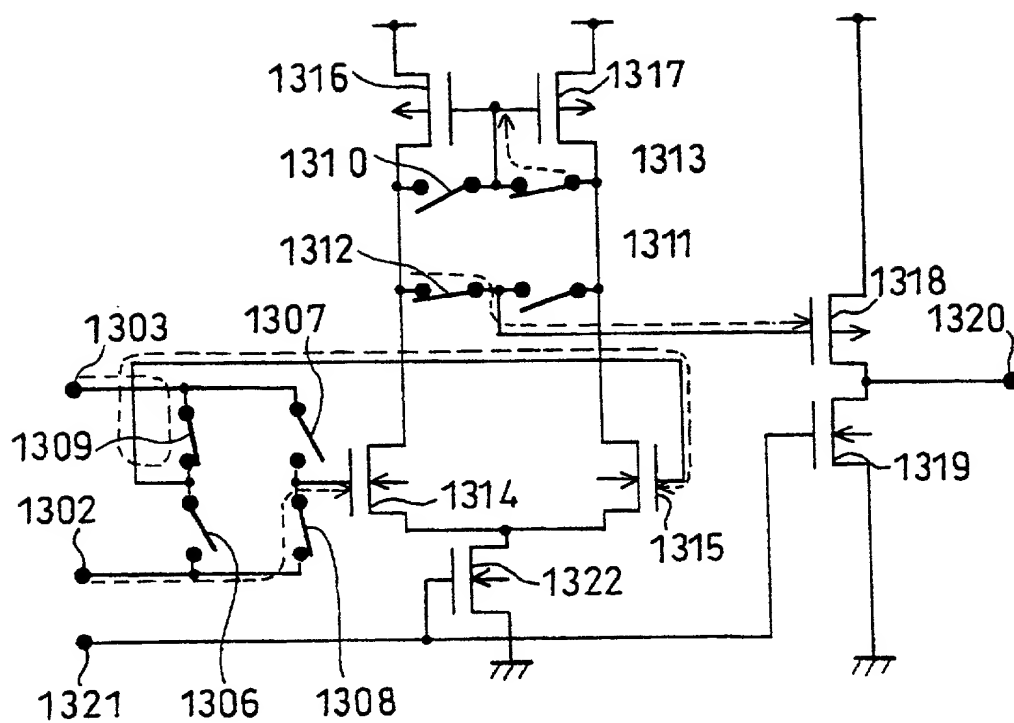


FIG. 37

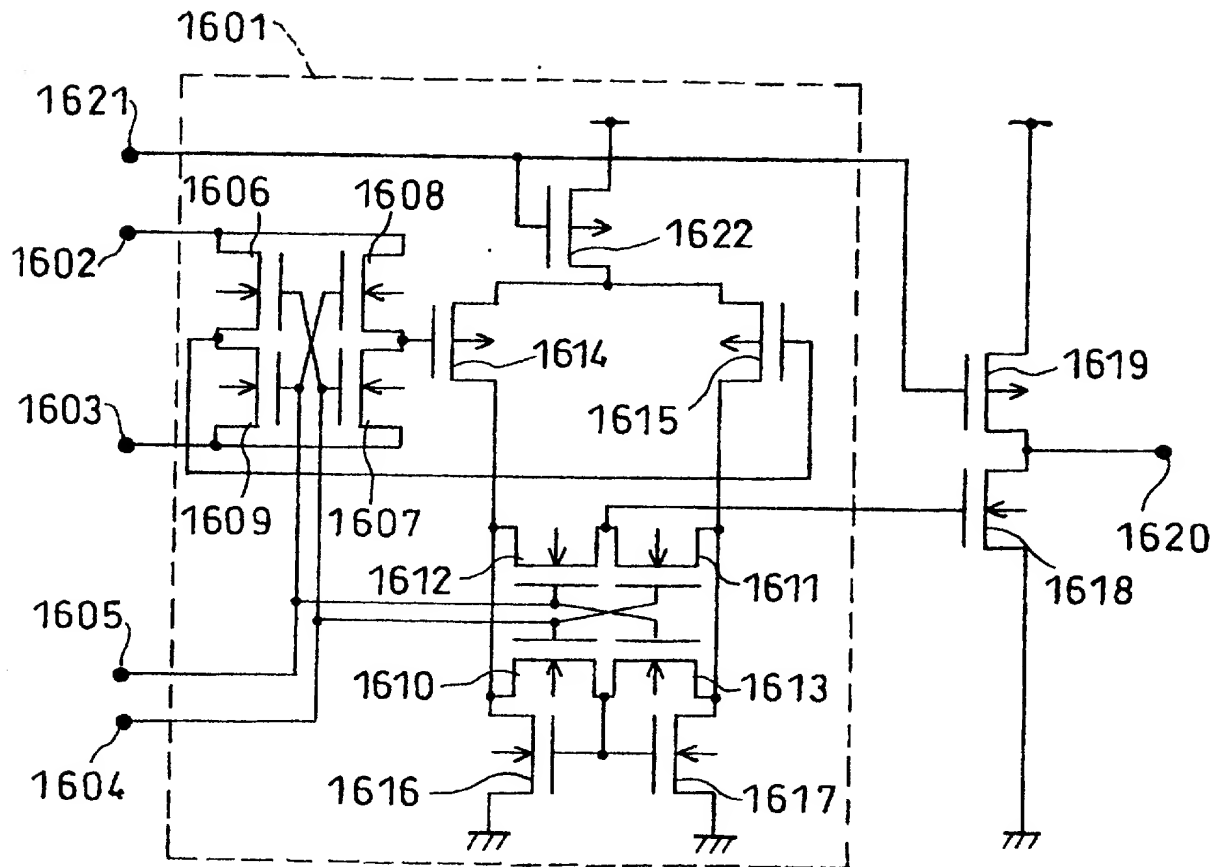


FIG. 38

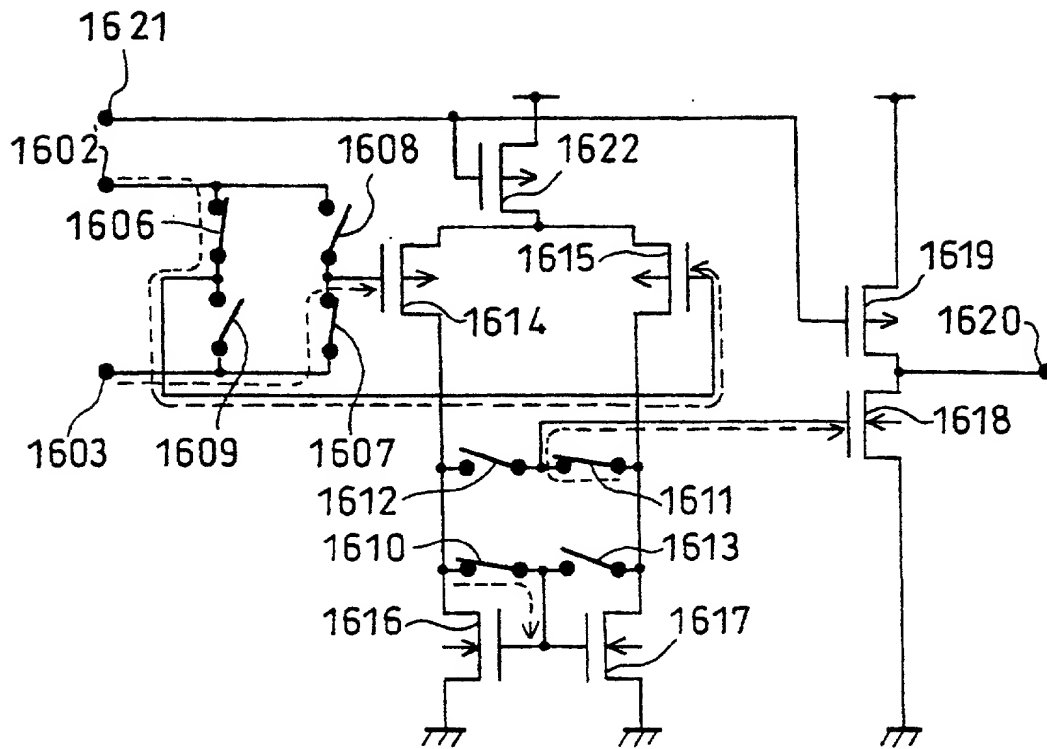


FIG. 39

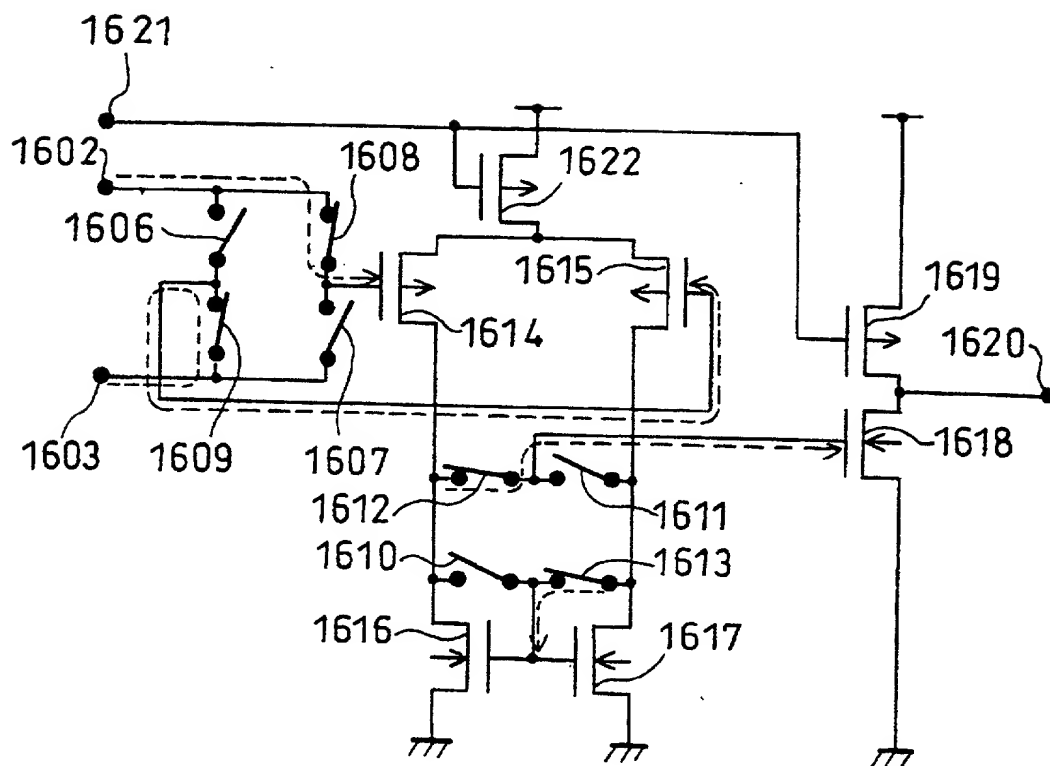


FIG. 40

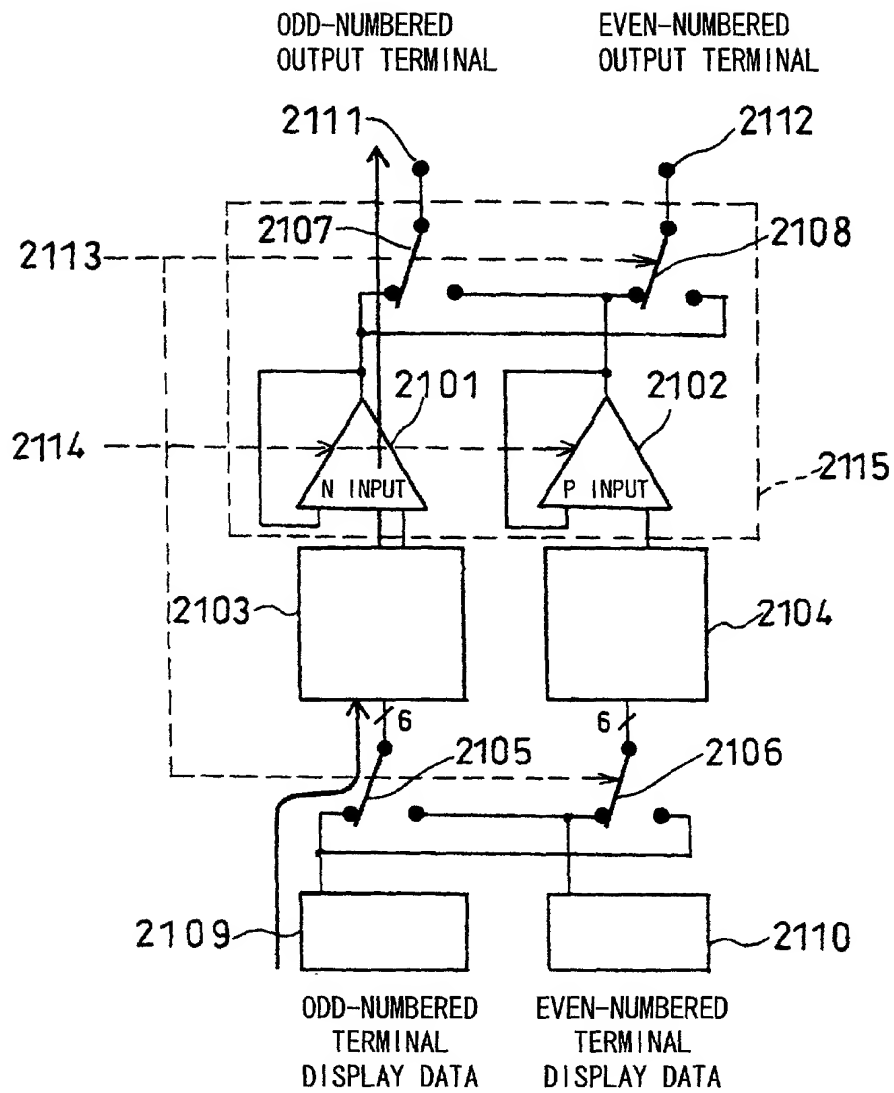


FIG. 41

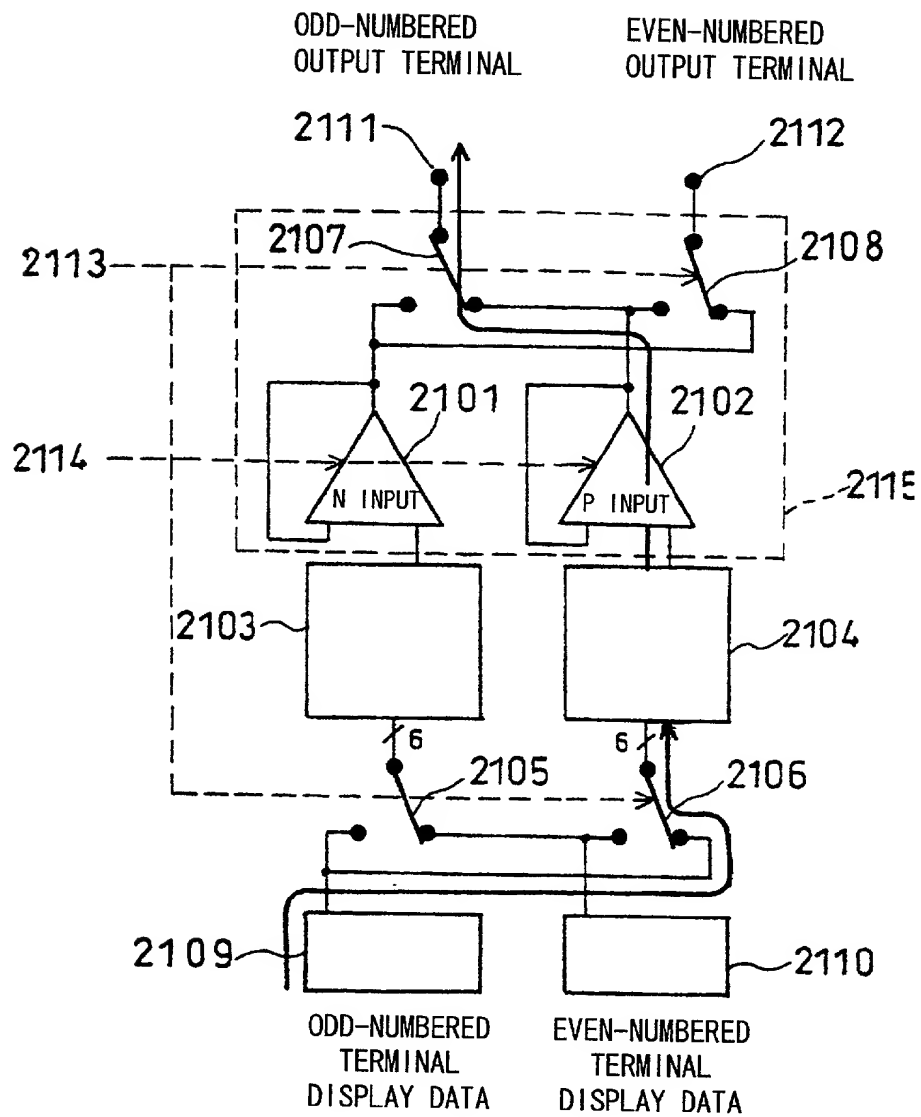


FIG. 42

